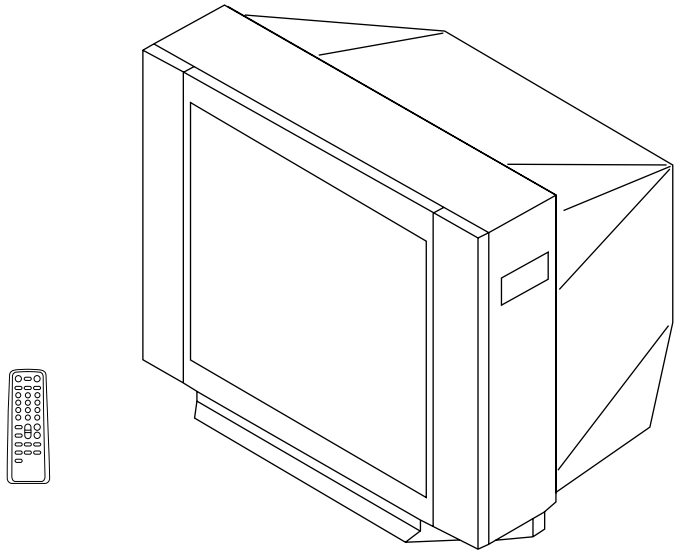
Self Diagnosis
Supported model

SERVICE MANUAL

BG-3S CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-XG29M21	RM-952	New Zealand	SCC-U26D-A

MODEL	COMMANDER	DEST.	CHASSIS NO.



TRINITRON® COLOR TV

SONY®

SPECIFICATIONS

		Note
Power requirements	220-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Teletext language	English, Arabic, French	
Channel coverage		
B/G	VHF : 1 to 11 UHF : 21 to 69 CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 UHF : C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 UHF : A14 to A79 CATV : A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output	5W + 5W	
Number of terminal		
(Video)	Input: 2 Output: 1	Phono jacks; 1 V_{P-P}, 75 ohms
Audio	Input: 2 Output: 1	Phono jacks; 500 mVrms
(Headphone)	Output: 1	Minijack
Picture tube	29 inch	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	794 × 573 × 517	
Mass (kg)	48	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

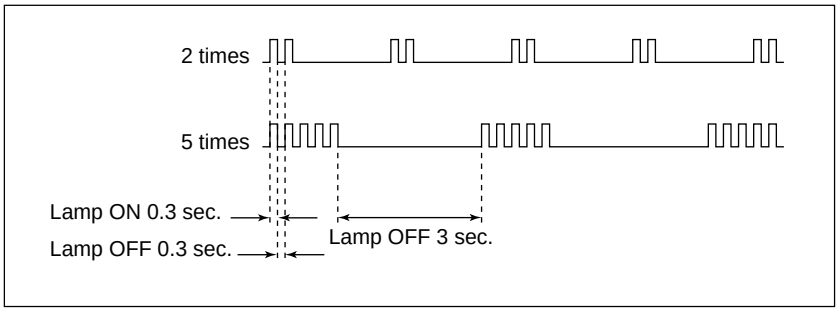
When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

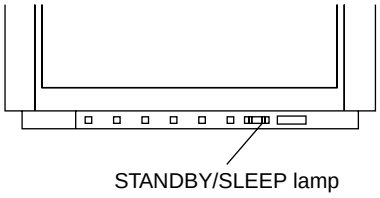
Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F8601 (B6)	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	• H.OUT Q511 is shorted. (A board) • IC1800 is shorted. (C6 board) • -13V is not supplied. (A board) • IC 503 faulty (A board)	• Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	• G2 is improperly adjusted. (Note 2) • CRT problem. • Video OUT is faulty. (C6 board) • IC301 is faulty. (A board) • No connection A board to C6 board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	• Discharge CRT (C6 Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.
The symptom that is diagnosed first by the microcontroller is displayed on the screen.
Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT





Diagnostic Item	Flash Count*
+B overcurrent/overvoltage Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.

3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

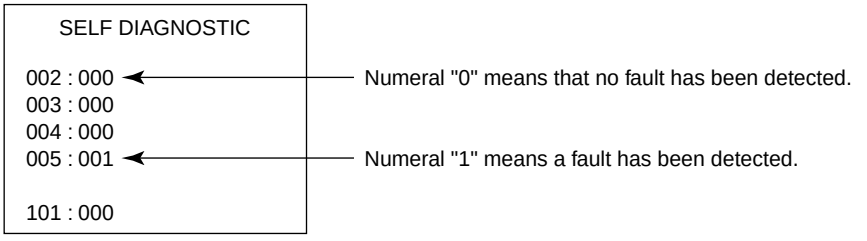
4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurances of failure for confirmation on the screen:

[To Bring Up Screen Test]
In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel 5 ➡ Sound volume - ➡ Power ON
⇧
Note that this differs from entering the service mode (mode volume +).

Self-Diagnosis screen display


SELF DIAGNOSTIC
002 : 000
003 : 000
004 : 000
005 : 001
101 : 000
Numeral "0" means that no fault has been detected.
Numeral "1" means a fault has been detected.

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

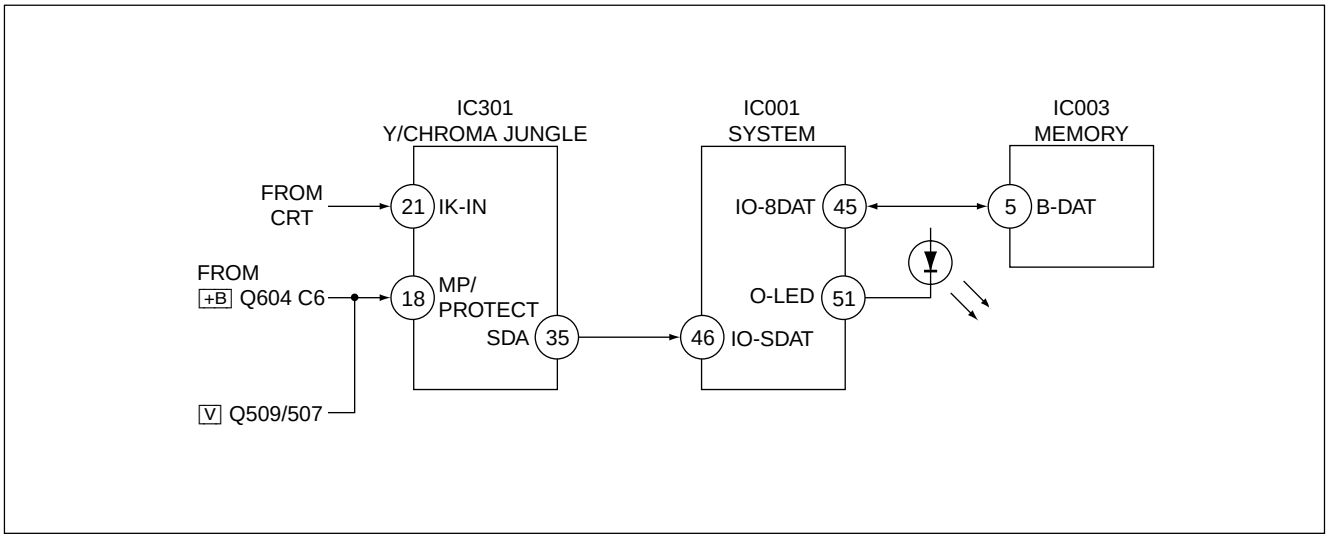
Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel 8 ➡ 0

[Quitting Self-diagnostic screen]
To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT



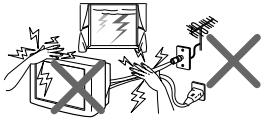
+B overcurrent (OCP)	Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.
Vertical deflection stopped	Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.
Vertical deflection overcurrent	Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.
White balance failure	If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture. * (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

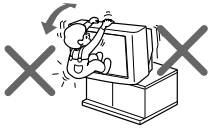
SECTION 1
GENERAL

WARNING

- Dangerously high voltages are present inside the TV.
- Operate the TV only between 220 – 240 V AC.

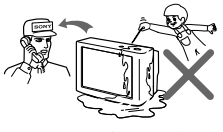


For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.

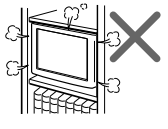


Install the TV in a stable position. Do not allow children to climb onto it.

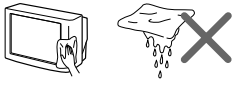
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



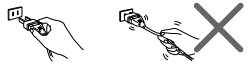
Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.



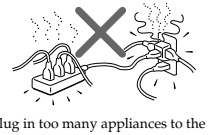
Do not install the TV in a confined space, such as a bookcase or built-in cabinet.
Do not block the ventilation openings of the TV.



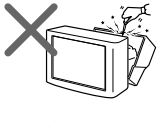
Clean the TV with a dry and soft cloth.
Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.



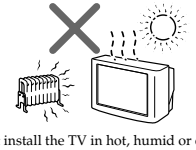
Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV if you are not going to use it for several days.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.



Do not open the cabinet and the rear cover of the TV. Refer servicing to qualified personnel.



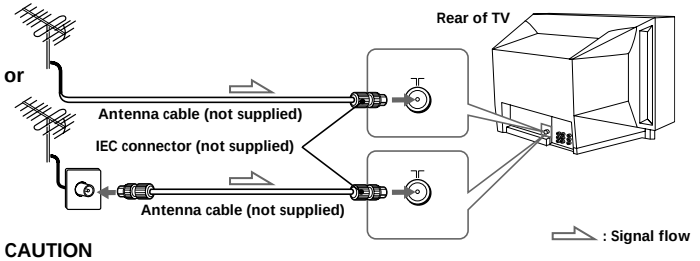
Do not install the TV in hot, humid or excessively dusty places.

Getting Started

Step 1

Connect the antenna

If you wish to connect a VCR, see the "Connecting a VCR" diagram below.

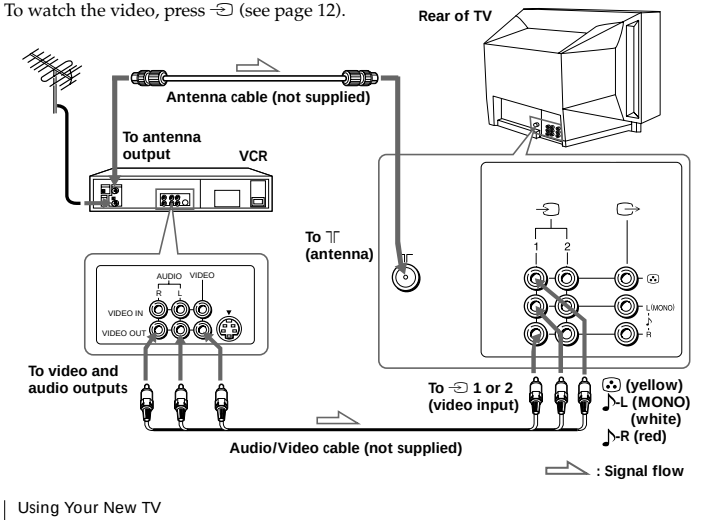


CAUTION

Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.

Connecting a VCR

To watch the video, press ⊖ (see page 12).

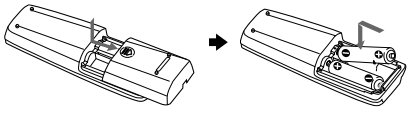


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to L (MONO) (the white jack).
- If you connect a VCR to the (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- Do not connect video equipment to the 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input to the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote

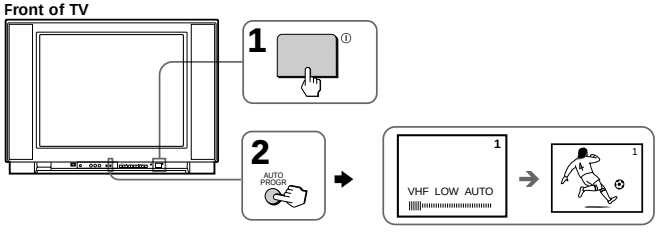


Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically



Tips

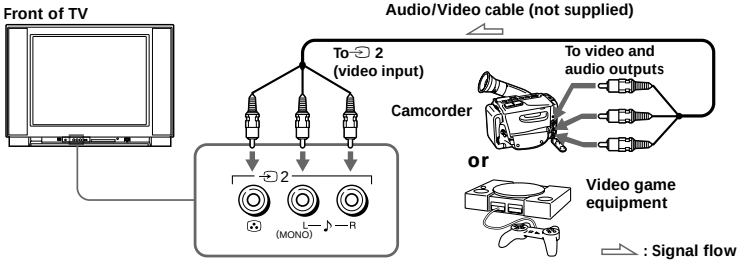
- If you want to stop automatic channel presetting, press SELECT twice.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 9).

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, camcorder, video game or stereo system.

To watch the picture of the connected equipment, press (see page 12).

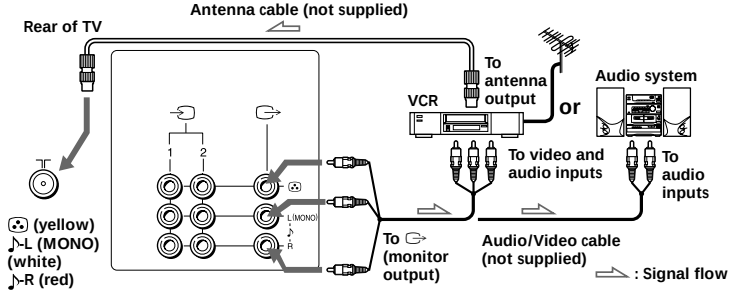
Connecting a camcorder/video game equipment using the (video input) jacks



Notes

- You can also connect video equipment to the 1 or 2 (video input) jacks at the rear of your TV.
- Do not connect video equipment to the 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the (monitor output) jacks



Note

- When connecting a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to L (MONO) (the white jack).

KV-XG29M21
RM-952

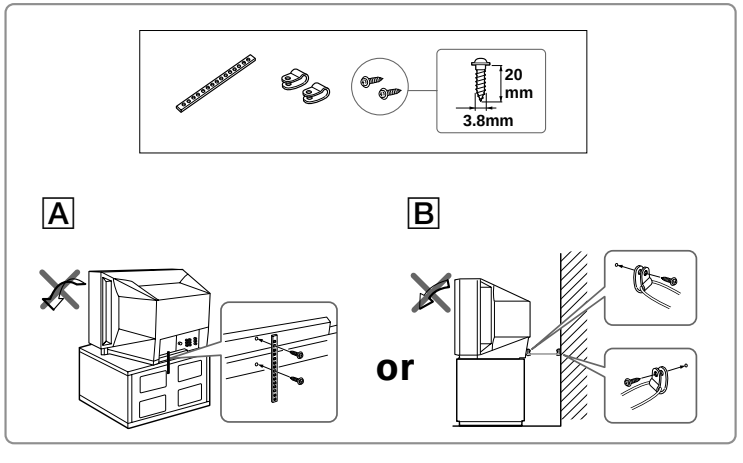
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.

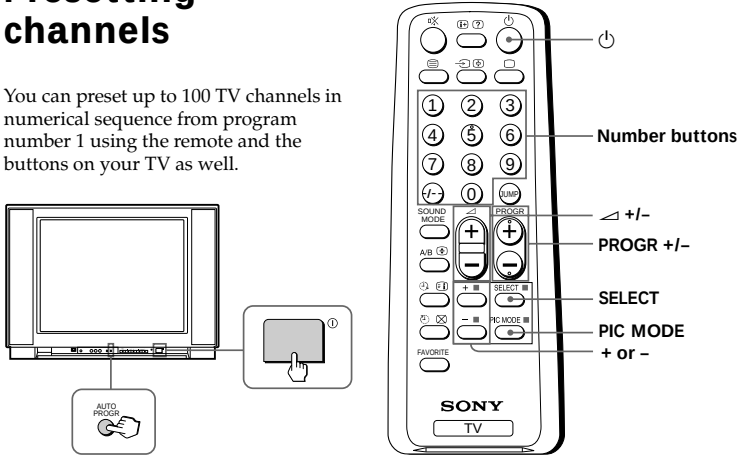


Note

- Use only the supplied screws. Use of other screws may damage the TV.

Presetting channels

You can preset up to 100 TV channels in numerical sequence from program number 1 using the remote and the buttons on your TV as well.



Presetting channels automatically

1 Press ⏻ to turn on the TV.

2 Press AUTO PROGR.

To preset channels automatically from a specified program number

(1) Press SELECT until "AUTO PROGRAM" appears.

(2) Press + or –.
The on-screen display will start flashing.

(3) Press PROGR +/– or the number buttons until the desired program number appears.

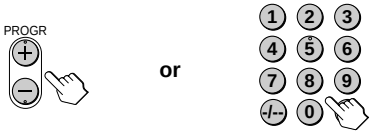
(4) Press + or –.

Presetting channels manually

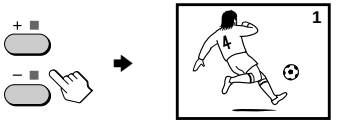
1 Press SELECT until "MANUAL PROGRAM" appears.

2 Press + or –.

3 Press PROGR +/– or the number buttons until the desired program number appears.



4 Press + or – until the desired channel picture appears.



5 Press SELECT.

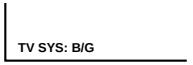
Note

- If you preset a locked channel, that particular channel will be unlocked automatically (page 17).

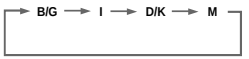
To change the TV system setting

If the picture or sound is abnormal when receiving programs through the ⅂ (antenna) terminal

(1) Press SELECT until "TV SYS" appears.



(2) Press + or – to select the appropriate TV system until the picture or sound quality is optimal.



continued

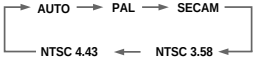
Presetting channels (continued)

To change the color system setting

If the color is abnormal when receiving programs through the ⅂ (antenna) terminal or the ⇦ (video input) jack.

(1) Press SELECT until "COL SYS" appears.

(2) Press + or – to select the appropriate color system until the color is optimal.



Tip

- Normally set "COL SYS" to "AUTO".

Skipping program numbers

1 Press PROGR +/– or the number buttons until the unused or unwanted program number appears.

2 Press SELECT until "MANUAL PROGRAM" appears.

3 Press + or –.

4 Press PIC MODE.

5 Press SELECT.

To preset the skipped program number again

Preset the channel automatically or manually.

Tip

- You can also use SELECT and ◿ +/– on the TV to preset channels and skip program numbers.

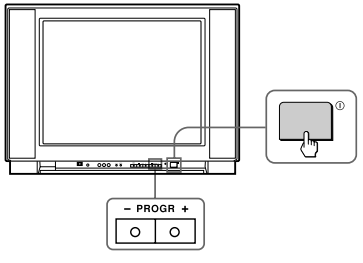
To use the fine tuning (FINE) function

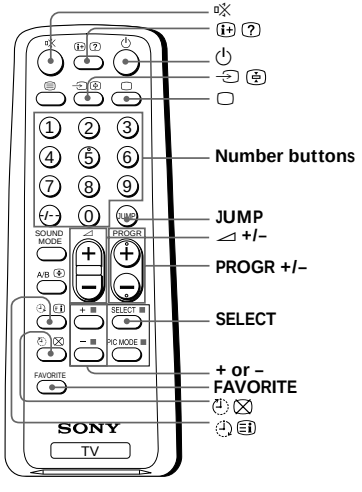
The fine tuning (FINE) function may help to reduce the following problems: incomplete Teletext display (KV-XG29M21 only), double images and lines moving across the TV screen.
You can use the fine tuning function as below:

(1) Select the program number you want to adjust.
(2) Press SELECT until "MANUAL PROGRAM" appears on the screen.
(3) Press + or – on the remote control once.
(4) Press ⓘ to display "FINE" on the screen.
(5) Press + or – continuously until the above problems are minimized. The + or – icon on the screen flashes while tuning.
(6) Press SELECT to return to normal screen.

Watching the TV

This section explains functions used while watching the TV. Most operations can be done using the remote.



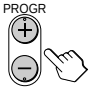


1 Press ⏻ to turn on the TV.

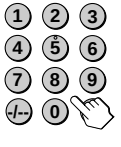
When the TV is in the standby mode (the ⏻ indicator on the TV is lit red), press ⏻ on the remote or PROGR +/– on the TV.

2 Press PROGR +/– or the number buttons to select the TV program.

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).



or



3 Press +/– to adjust the volume.

continued

Additional tasks

To	Do this
Turn off temporarily	Press ⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	Press ⏻ on the TV.
Mute the sound	Press 🔇.
Watch the video input (VCR, camcorder, etc.)	Press ⏎ to select "VIDEO 1" or "VIDEO 2". To return to the TV program, press 🖵.
Jump back to the previous channel	Press JUMP.
Display the on-screen information*	Press ⓘ.
Adjust the volume of each TV program automatically	Press SELECT repeatedly until "INTELLIGENT VOL" appears, then press + or – to select "ON". To cancel, select "OFF".
Adjust the picture position when it is not aligned to the TV screen	Press SELECT repeatedly until "PIC ROTATION" appears, then press + or – to adjust the alignment of the picture position. **PIC ROTATION** ⊟↓🖵↴⊞ The ↴⊞ or ⊟↓ icon on the screen flashes while adjusting.

* The picture, sound, and either the program number or video mode are displayed. The on-screen display for the picture and sound information disappears after about 3 seconds.

Changing the on-screen display language

1 Press SELECT until "LANGUAGE / 语言: ENGLISH" appears on the screen.

2 Press + or – to select "中文".

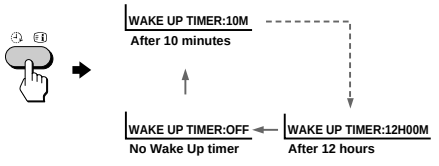
Tip

- You can also use SELECT and +/– on the TV to select the on-screen display language.

Setting the Wake Up timer

1 Press ◴ until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



2 Select the TV program or video mode you want to display when you wake up.

3 Press ⏻ or set the Sleep timer if you want the TV to turn off automatically.

The ◴ indicator on the TV lights up orange.

To cancel the Wake Up timer

Press ◴ until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

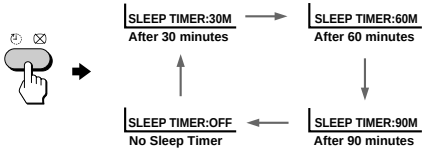
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press ◴ until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



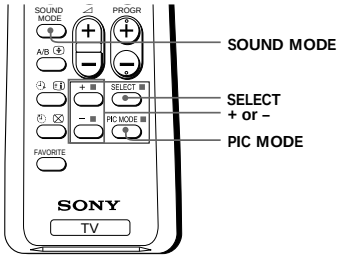
To cancel the Sleep timer

Press ◴ until "SLEEP TIMER: OFF" appears or turn the TV off.

Customizing the picture and sound

You can customize the picture and sound by selecting the picture and sound modes or by adjusting its settings.

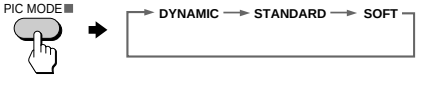
You can change the sound effect by selecting the surround mode.



Selecting the picture and sound modes

To select the picture mode

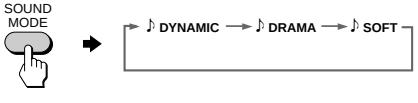
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.

To select the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high sound.
"DRAMA"	listen to sound that emphasizes vocals and background music.
"SOFT"	receive soft sound.

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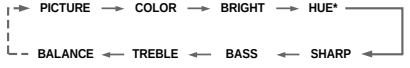
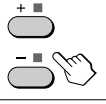
Adjusting the picture and sound settings

1 Press SELECT until the desired setting appears.

Each time you press SELECT, the setting item will change as follows:



2 Press + or – to adjust the item.



3 To adjust other items, repeat steps 1 to 2.

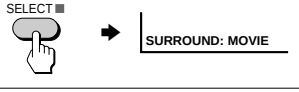
* "HUE" can be adjusted for the NTSC system only.

Notes

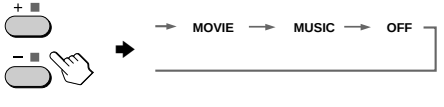
- When you select a picture or sound mode, the adjusted settings will be reset according to the selected mode.
- You can also use SELECT and ◿ +/– on the TV to adjust the picture and sound settings.

Selecting the surround mode

1 Press SELECT repeatedly until "SURROUND" appears.



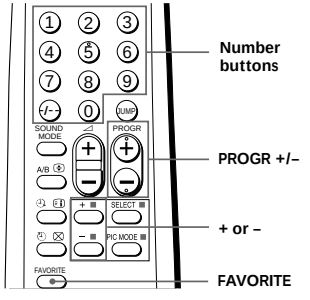
2 Press + or – to select the desired surround sound.



Select	To
"MOVIE"	listen to sound that spreads out over a large area, giving the feeling of being at a movie theatre.
"MUSIC"	listen to the sound that gives the feeling of being at a live concert.
"OFF"	turn off the surround sound.

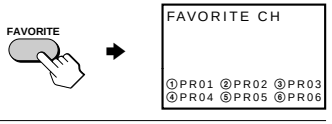
Viewing your favorite channels

You can display six of your favorite channels for quick and easy selection. You can change the favorite channel setting as well.



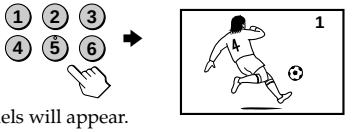
Selecting a favorite channel

1 Press FAVORITE.



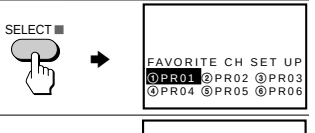
2 Press the number button from 1 to 6 to select the desired channel.

When you use the "FAVORITE CH" feature for the first time, six preset channels will appear.



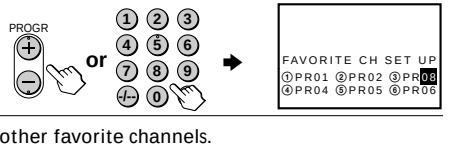
Changing the favorite channel setting

1 Press SELECT until "FAVORITE CH SET UP" appears.



2 Press + or – to select the favorite channel you want to change (e.g. ③ PR03).

3 Press PROGR +/–, or number buttons to change the program number.

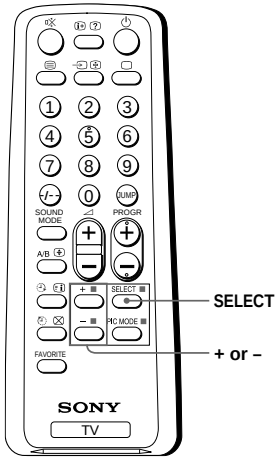


4 Repeat steps 2 and 3 to set other favorite channels.

5 Press SELECT.

Blocking the channels (CHILD LOCK)

You can prevent a child from watching certain channels by using the buttons on the remote control.



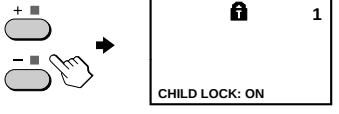
1 Select the channel you want to lock.

2 Press SELECT until "CHILD LOCK" appears on the screen.

3 Press + or – to select "ON".

The 🔒 symbol appears on the screen.

To unlock the channel, press + or – to select "OFF". The 🔒 symbol disappears from the screen.



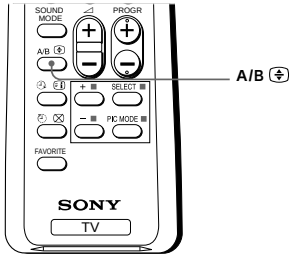
Note

- If you preset a locked channel, that particular channel will be unlocked automatically (page 8).

Enjoying stereo or bilingual programs

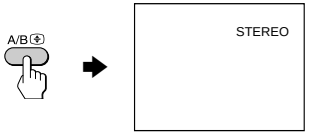
(KV-XG29M30 only)

You can enjoy stereo sound or bilingual programs of NICAM and A2 (German) stereo systems.



Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound and the ◌ indicator on the TV lights up red.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) → MONO (Regular sound)
NICAM bilingual	NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound)
NICAM monaural	NICAM MAIN (Main sound) → MONO (Regular sound)

When receiving an A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	MONO (Regular sound) → STEREO (Stereo sound)
A2 (German) bilingual	MAIN (Main sound) → SUB (Sub sound)

Receiving area for NICAM and A2 (German) programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.

If the sound is distorted or noisy when receiving a monaural program through the ⅂ (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.

To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

MONO → AUTO

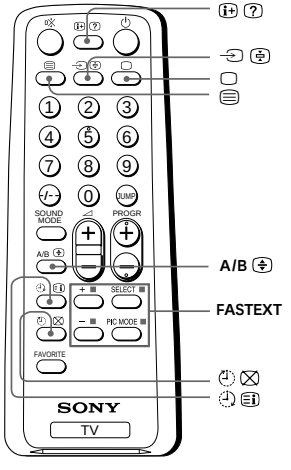
Notes

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive stereo broadcast signal when the TV is in the "MONO" setting. Normally set the TV to "AUTO".

Viewing Teletext

(KV-XG29M21 only)

TV stations broadcast an information service called Teletext via some TV channels. Teletext allows you to receive various information, such as shares market or news.

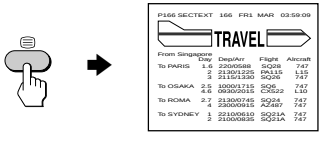


Displaying Teletext

1 Select a TV channel that carries the Teletext broadcast you want to watch.

2 Press ☰ to display the text.

A Teletext page (normally the index page) is displayed. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.



To turn off Teletext

Press ▢.

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press ☰i. An overview of the Teletext contents and page numbers appear on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page. * If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/–.
hold a Teletext page (stop the page from scrolling)	Press ⊕ to display the symbol "⊕" at the top left corner of the screen. To resume normal Teletext operation, press ⊕ or ☰.
reveal concealed information (e.g., an answer to a quiz)	Press ?. To conceal the information, press the button again.
enlarge the Teletext display	Press ⊕. Each time you press ⊕, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
wait for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press ⊗. 2 When the page number is displayed, press ☰ to show the text.

* You can also select a Teletext page of any page number that appears in the colored column at the bottom of the screen using the corresponding color-coded button on the remote.

Using FASTEXT

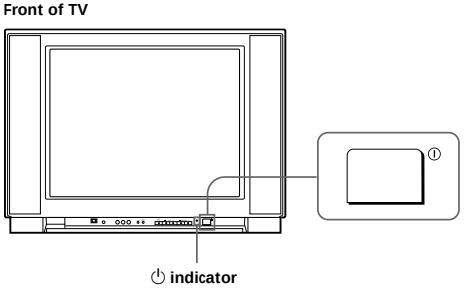
This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT program is broadcasted, the colored menus appear at the bottom of the screen. The colors of the menus correspond to the red, green, yellow, and blue color-coded buttons on the remote.

To access a FASTEXT menu

Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after several seconds.

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.



1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.

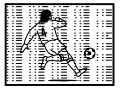
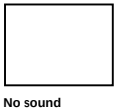
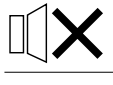
2 Count the number of times the ⏻ indicator flashes.

3 Press ⏻ (main power) to turn off your TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
Snowy picture  Noisy sound	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• Channel presetting is inappropriate or incomplete.	• Press SELECT until "MANUAL PROGRAM" appears on the screen, then preset the channel again.	9
	• The antenna type is inappropriate.	• Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.	–
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture Noisy sound	• Broadcast signals are too strong.	• Turn off or disconnect the booster if it is in use.	–
Good picture Noisy sound	• The TV system setting or channel presetting is inappropriate or incomplete.	• If the sound of all the channels are noisy, check the TV system (TV SYS) setting, then press AUTO PROGR to preset the channels again. • If the sound of some channels are noisy, select the channel, then select the appropriate TV system (TV SYS).	8 9
	• The selected sound is inappropriate.	• If the sound of some channels are noisy, select the channel, then press A/B to select the main sound.	18
No picture  No sound 	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	4
	• The TV is not turned on.	• Press ⏻ (power). • Press ⏀ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	12 11

continued

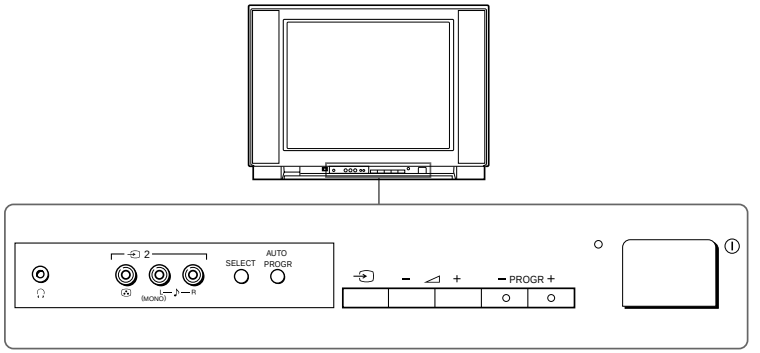
Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Good picture No sound	• The volume level is too low.	• Press ◿ + to increase the volume level.	11
	• The sound is muted.	• Press 🔇 to cancel the muting.	12
	• Broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	18
Dotted lines or stripes	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or "ghosts"	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning (FINE) function.	– 10
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color	• The color level setting is too low.	• Press SELECT until "COLOR" appears on the screen, then press + or – to adjust the color level.	15
	• The color system setting is inappropriate.	• Press SELECT until "COL SYS " appears on the screen, then check the color system setting (usually set this to "AUTO").	10
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
Abnormal color patches	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏀ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	–
TV cannot receive stereo broadcast signal (KV-XG29M30 only)	• The stereo reception setting is inappropriate.	• Press A/B until "AUTO" appears on the screen.	18

Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted. **or** **The sound switches between monaural and stereo frequently. (KV-XG29M30 only)**	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	18
"100" appears on the top of the screen and there is no Teletext display. (KV-XG29M21 only)	• The channel carries no Teletext broadcast.	—	20
Teletext display is incomplete (snowy picture or double images). (KV-XG29M21 only)	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR, and at the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is too low.	• Try using a booster.	–
		• Use the fine tuning (FINE) function.	10
Picture slant	• The terrestrial magnetism affects your TV set.	• Press "SELECT" until "PIC ROTATION" appears on the screen, then press + or – to align the picture to the TV screen.	12
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning (FINE) function.	10
The ⏻ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	22
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	–
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	–

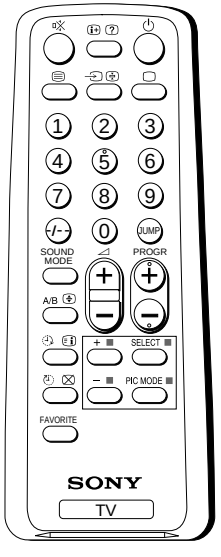
Identifying parts and controls

Front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
SELECT	Select the desired item.	9
PROGR +/–	Select program number.	11
⏻	Turn off completely or turn on the TV.	11
◿ +/–	Adjust volume.	11
⊖	Select TV or video input.	12
🎧	Headphone jack.	–

Remote Control



The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations

Button	Function	Page
SELECT	Select the desired item.	9
+/–	Adjust value.	9
PROGR +/–	Select program number.	11
0 – 9, -/--	Input numbers.	11
+/–	Adjust volume.	11
⏻	Turn off temporarily or turn on the TV.	12
⏎	Select TV or video input.	12
▢	Display the TV program.	12
🔇	Mute the sound.	12
ⓘ	Display on-screen information.	12
JUMP	Jump to previous channel.	12
Timer operations		
⏲	Set TV to turn on automatically.	13
⏲	Set TV to turn off automatically.	13
PIC MODE	Select picture mode.	14
SOUND MODE	Select sound mode.	14
FAVORITE	Display favorite channels.	16
Stereo/bilingual operations (KV-XG29M30 only)		
A/B	Select stereo/bilingual mode.	18
Teletext operations (KV-XG29M21 only)		
☰	Display Teletext broadcast.	–
⇳	Enlarge the Teletext display.	–
?	Reveal concealed information.	–
⇲	Stop Teletext page from scrolling.	–
ⓘ	Display Teletext service contents.	–
⊠	Show TV screen while waiting for Teletext page.	–
■ (red, green, yellow, blue)	Access a FASTEXT menu.	–

Specifications

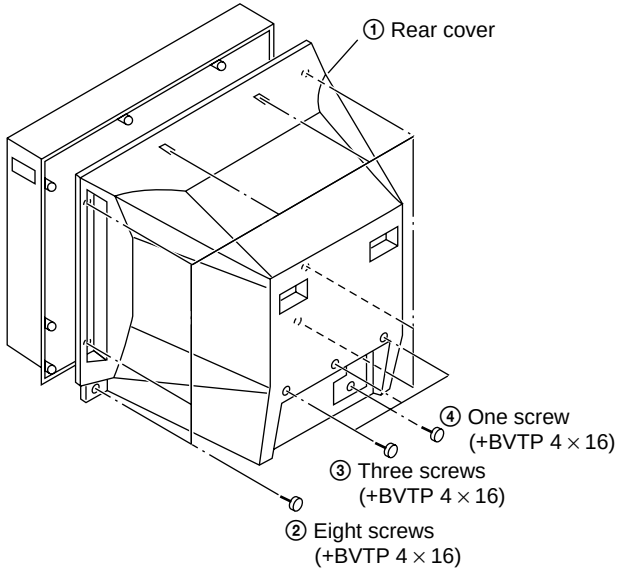
	KV-XG29M30 KV-XG29M21	Note
Power requirements	220-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I; A2 Stereo/Bilingual (German) B/G	KV-XG29M30
Teletext language	English, Arabic, French	KV-XG29M21
Channel coverage		
B/G	VHF : E2 to E12 UHF : E21 to E69 CATV : S01 to S03, S1 to S41	
	VHF : 0 to 12, 5A, 9A UHF : 28 to 69 CATV : S01 to S03, S1 to S41	Australia only
	VHF : 1 to 11 UHF : 21 to 69 CATV : S01 to S03, S1 to S41	New Zealand only
I	UHF : B21 to B68 CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 UHF : C13 to C57, R21 to R60 CATV : S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 UHF : A14 to A79 CATV : A-8 to A-2, A to W+4, W+6 to W+84	
Antenna	75-ohm external terminal	
Audio output	5W + 5W	
Number of terminal		
(Video)	Input: 2 Output: 1 Phono jacks; 1 Vp-p, 75 ohms	
(Audio)	Input: 2 Output: 1 Phono jacks; 500 mVrms	
(Headphone)	Output: 1 Minijack	
Picture tube	29 in.	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimensions (w/h/d, mm)	794 × 573 × 517	
Mass (kg)	48	

Design and specifications are subject to change without notice.

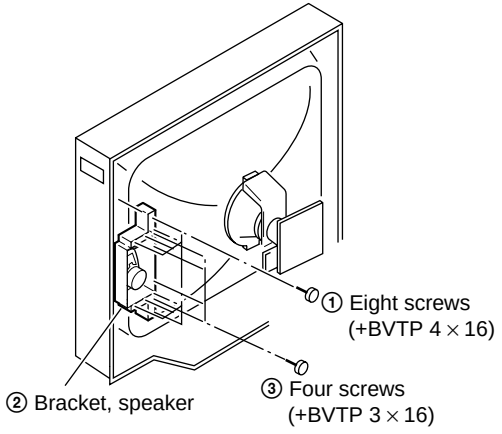
Sony Corporation

SECTION 2
DISASSEMBLY

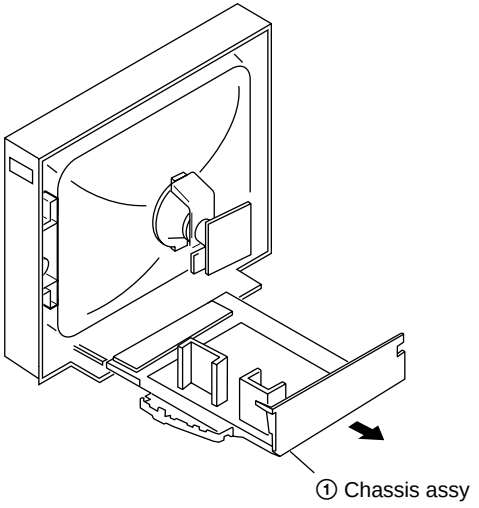
2-1. REAR COVER REMOVAL



2-2. SPEAKER REMOVAL

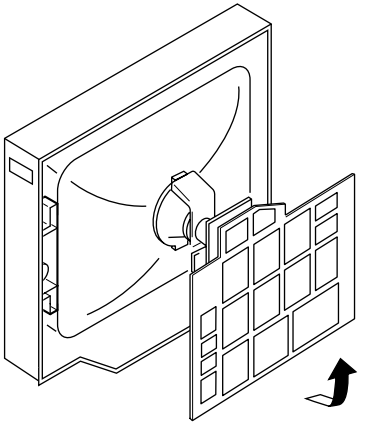


2-3. CHASSIS ASSY REMOVAL



2-4. SERVICE POSITION

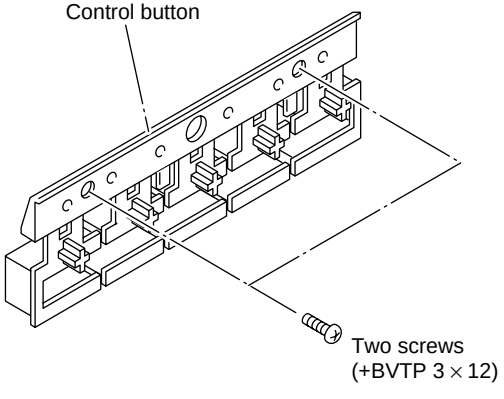
(Note: Remove F Bracket first.)



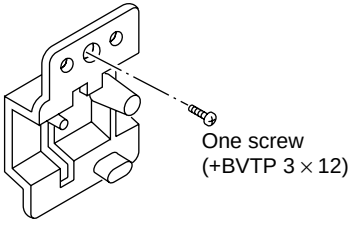
2-5. REPLACEMENT OF PARTS

For replacement of the Control Button and Light Guide, unscrew them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

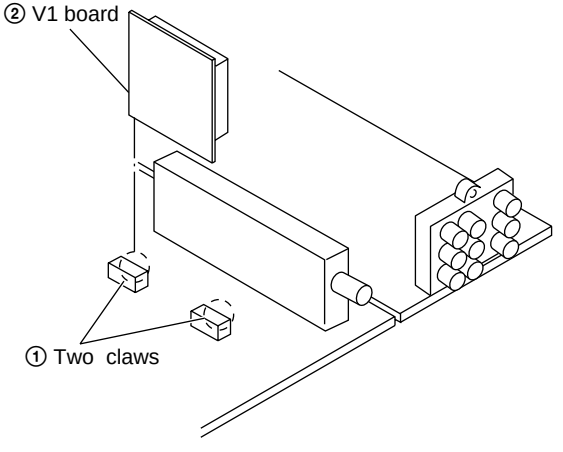
2-5-1. REPLACEMENT OF CONTROL BUTTON



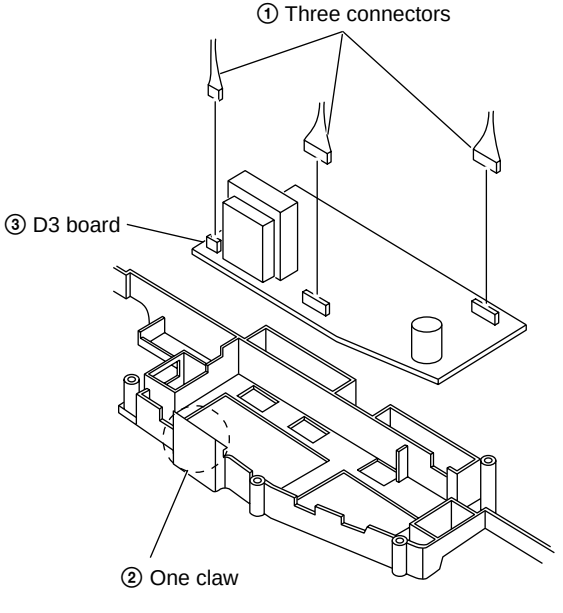
2-5-2. REPLACEMENT OF LIGHT GUIDE



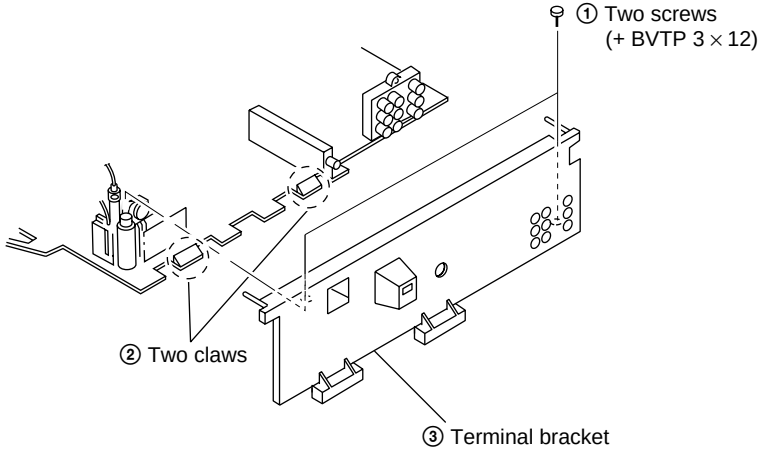
2-6. V1 BOARD REMOVAL



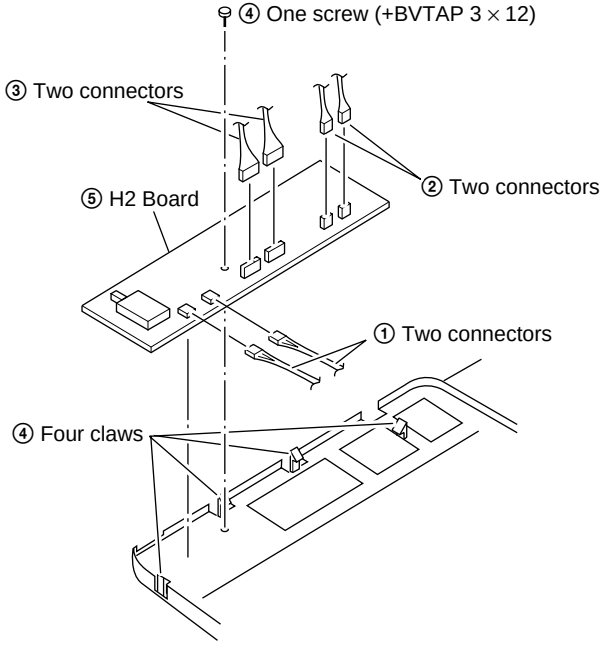
2-7. D3 BOARD REMOVAL



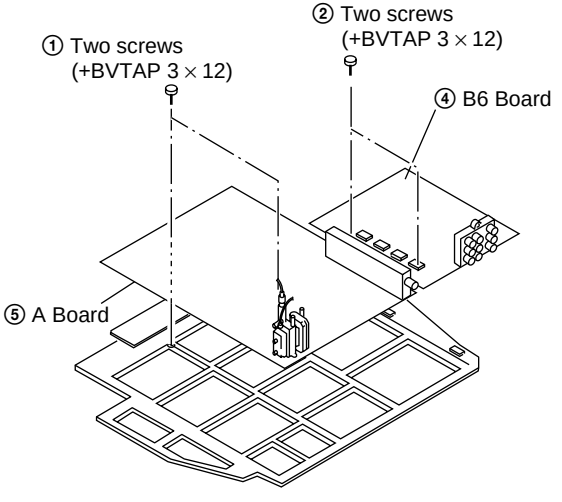
2-8. TERMINAL BRACKET REMOVAL



2-9. H2 BOARD REMOVAL

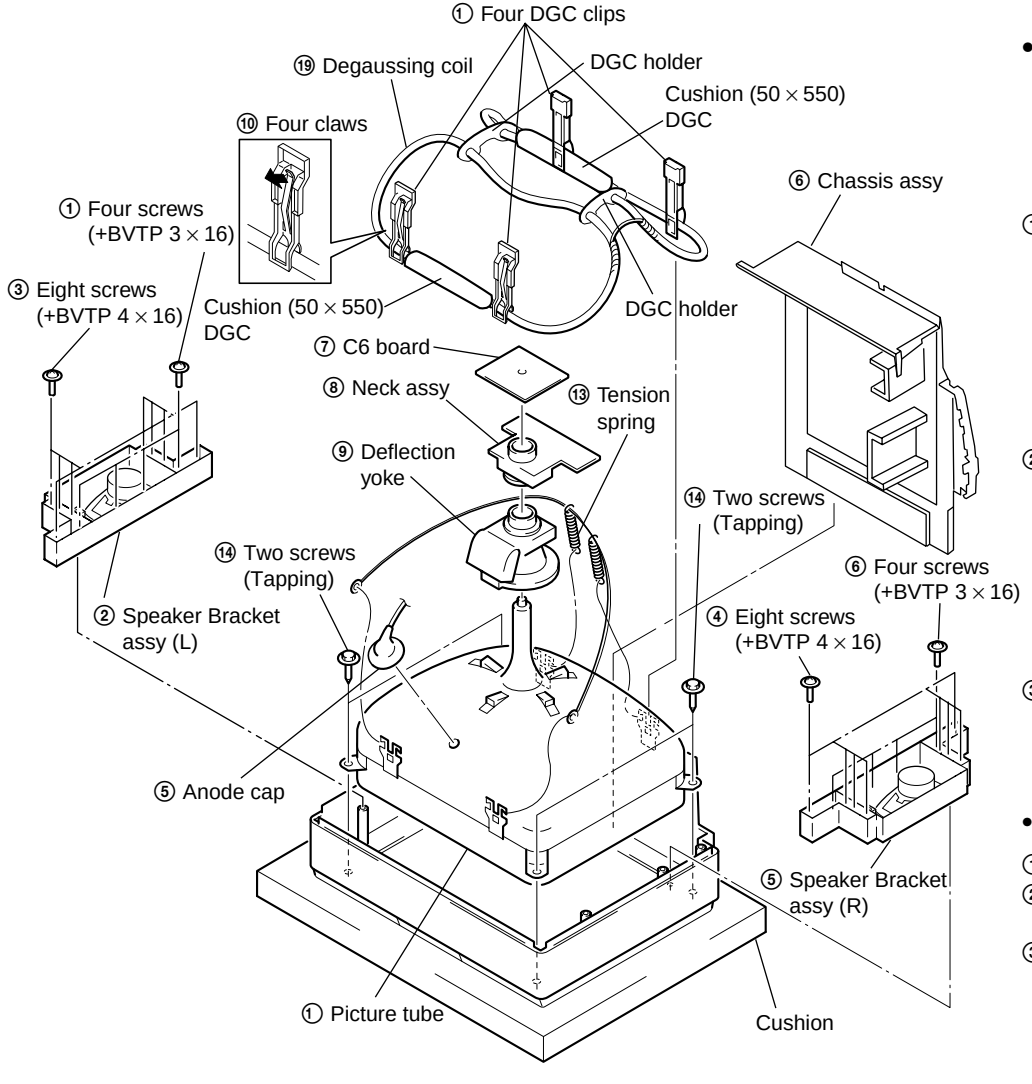


2-10. A AND B6 BOARDS REMOVAL



2-11 PICTURE TUBE REMOVAL

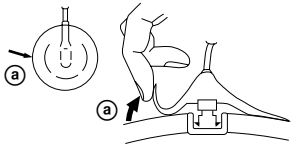
Note: The picture tube for New Zealand model is upside down, and the position for anode cap and tension spring are changed accordingly.


① Four DGC clips
⑲ Degaussing coil
DGC holder
Cushion (50 × 550) DGC
⑩ Four claws
⑥ Chassis assy
① Four screws (+BVTP 3 × 16)
③ Eight screws (+BVTP 4 × 16)
Cushion (50 × 550) DGC
DGC holder
⑦ C6 board
⑧ Neck assy
⑬ Tension spring
⑨ Deflection yoke
⑭ Two screws (Tapping)
⑥ Four screws (+BVTP 3 × 16)
⑭ Two screws (Tapping)
② Speaker Bracket assy (L)
④ Eight screws (+BVTP 4 × 16)
⑤ Anode cap
⑤ Speaker Bracket assy (R)
① Picture tube
Cushion

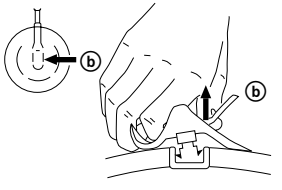
• REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

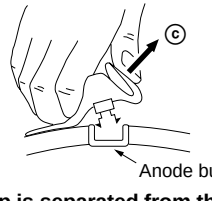
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



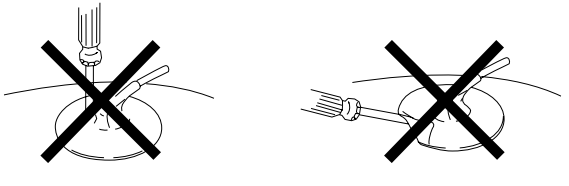
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

① Do not damage the surface of anode-caps with sharp shaped objects.
② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:
PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig3-2.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
   (See Figures 3-1 through 3-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
   (See Figure 3-5.)

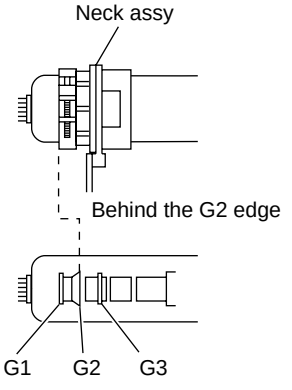


Fig. 3-1

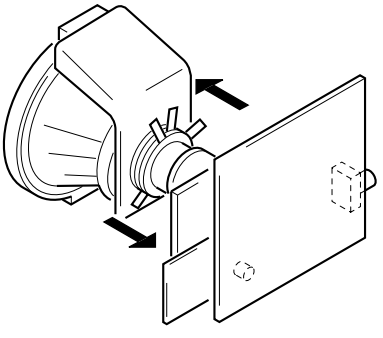


Fig. 3-2

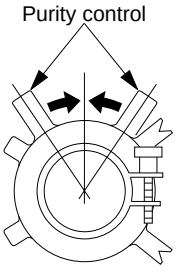


Fig. 3-3

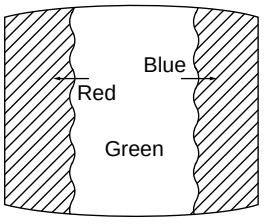


Fig. 3-4

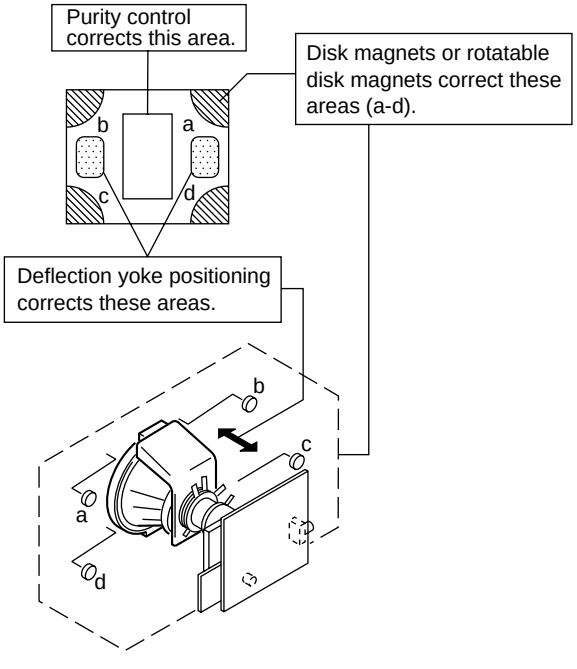


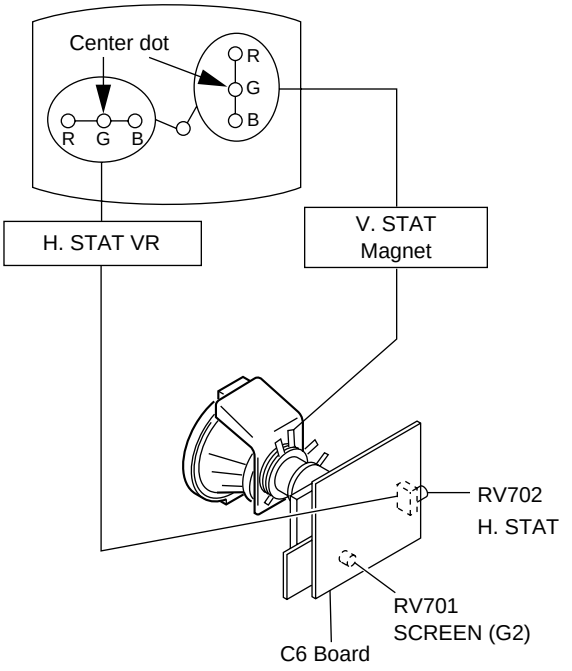
Fig. 3-5

3-2. CONVERGENCE

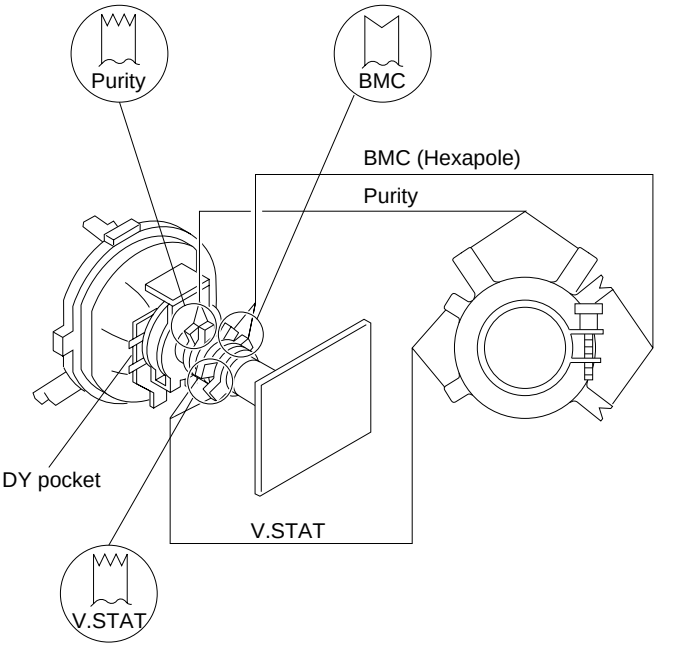
Preparation :

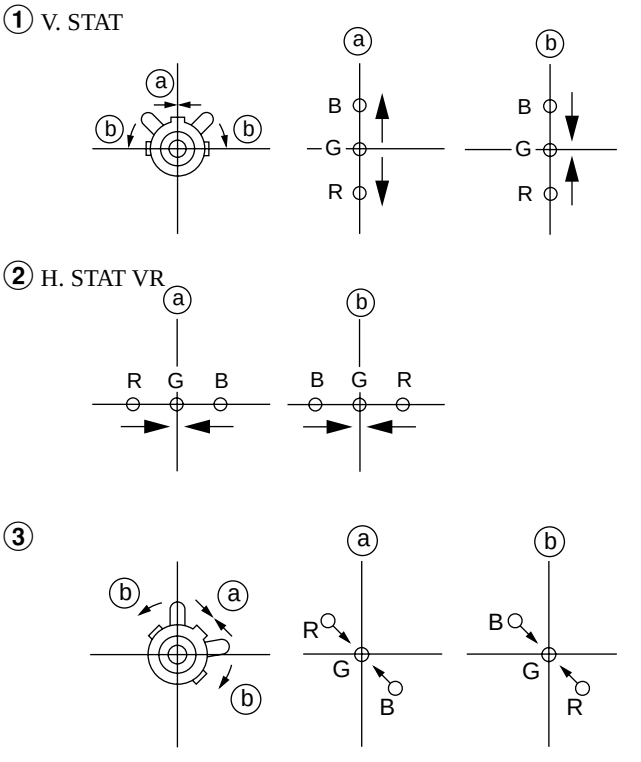
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence



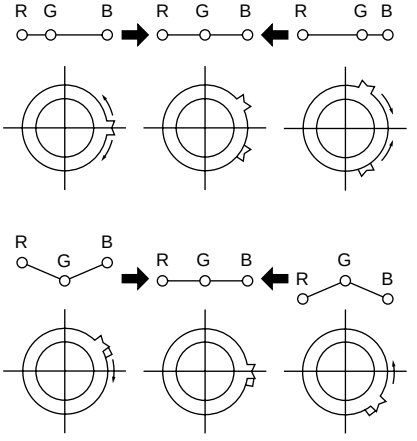
1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)

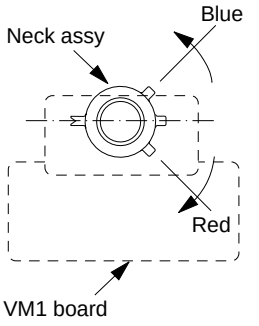


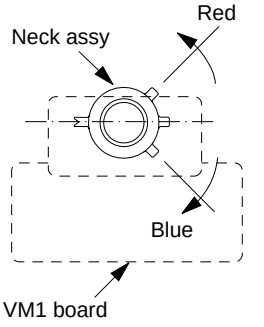


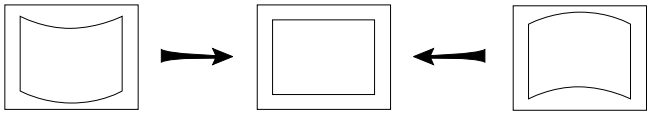
④ BMC (Hexapole) Magnet.

If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.









⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .
2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

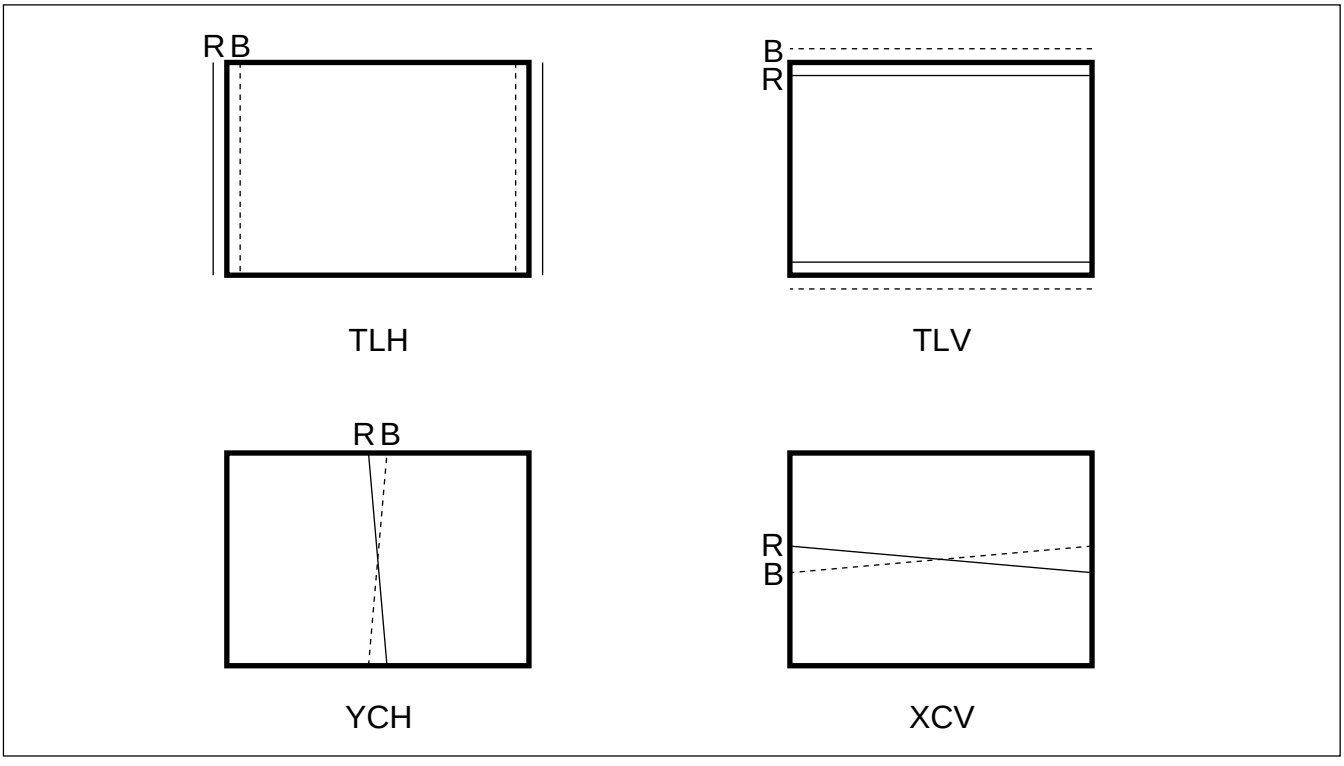
Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

(2) Dynamic Convergence Adjustment

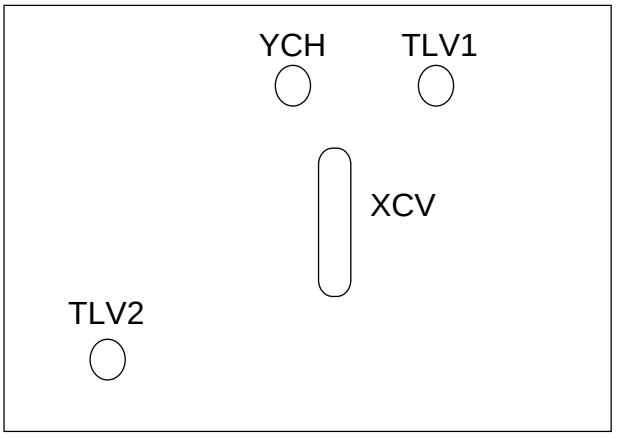
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence

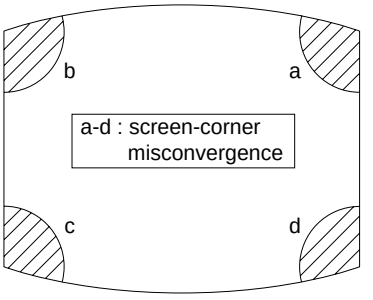


TLV	Rotate	TLV-2	VOL (29”, 34”) on DY
	Rotate	TLV	VOL (25”) on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

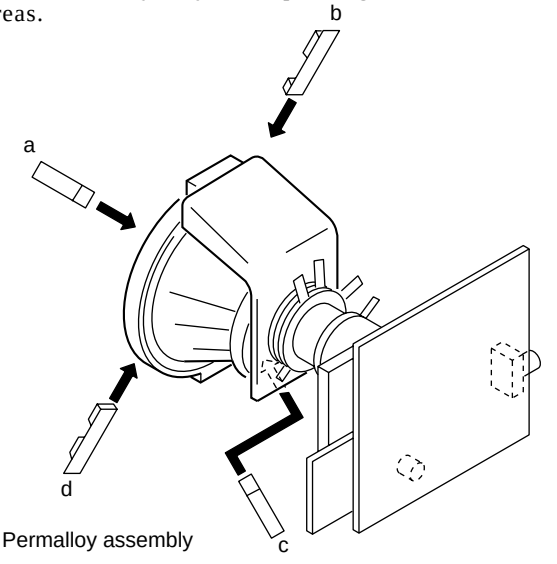
ON DY:



(3) Screen-corner Convergence

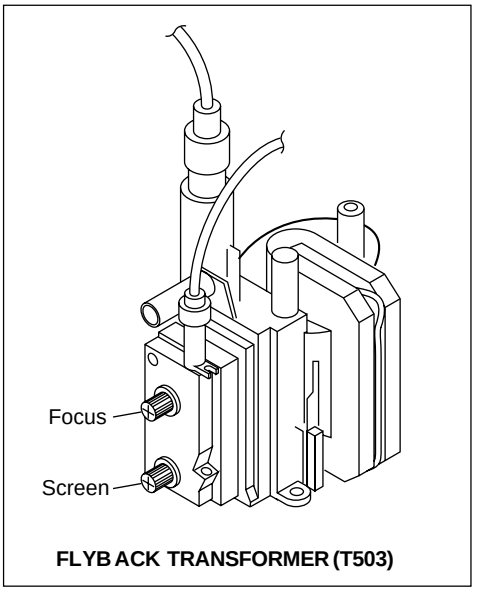


Fix a Permalloy assy corresponding to the misconverged areas.



3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.

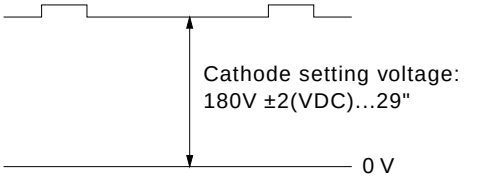


FLYBACK TRANSFORMER (T503)

3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

1) Set the PICTURE to normal.
2) Put to VIDEO input mode without signals.
3) Connect R, G and B of the C6 board cathode to the oscilloscope.
4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

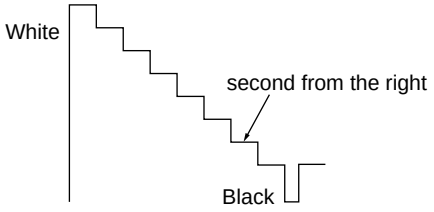


2. WHITE BALANCE ADJUSTMENT

1) Set to Service Mode (Refer Section 4-1: ADJUSTMENTS WITH COMMANDER).
2) Input white raster signal.
3) Set the PICTURE to minimum.
4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
5) Set the PICTURE to maximum.
6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

1) Set to service mode.
2) Input a staircase signal of black to white from the pattern generator.
3) BRIGHTNESS .... 50%.
   PICTURE ..... MINIMUM
4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-952 that comes with this unit.

a. ENTERING SERVICE MODE

With the unit on standby
↓
DISPLAY
↓
5
↓
VOL (+)
↓
POWER

This operation sequence puts the unit into service mode.

b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press POWER button on the commander), then press POWER button again, hereupon it becomes TV mode.

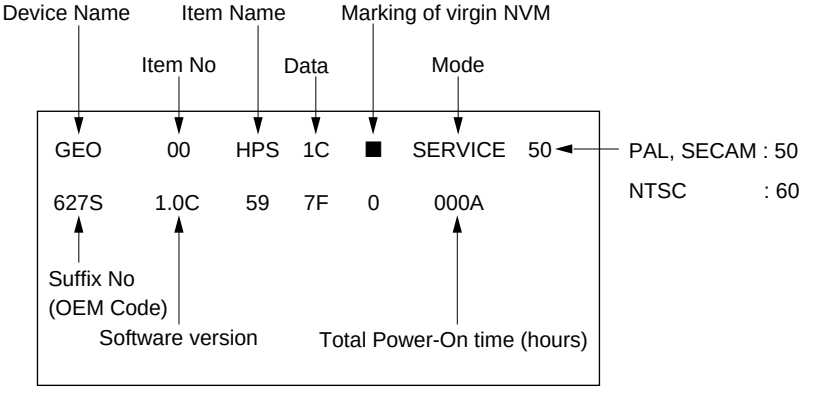
c. METHOD OF WRITE INTO MEMORY

1) Set to Service Mode.
2) Press 1 (UP) and 4 (DOWN), select an item of adjustment.
3) Press MUTING button and it will indicate WRITE on the screen.
4) Press 0 button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

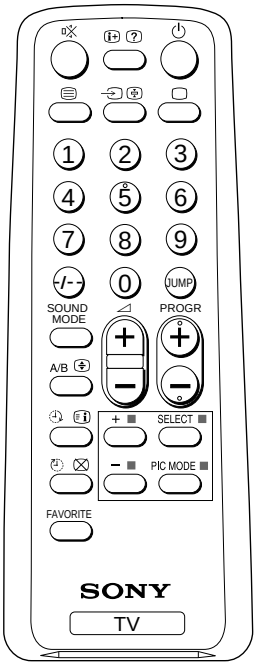
1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.

The screen display is :



1, 4 ↓	Select the adjustment item.
3, 6 ↓	Raise/lower the data value.
MUTING ↓	Writes.
0	Executes the writing.

7, 0	All the data becomes the values in memory.
8, 0	All user control goes to the standard state.
5, 0	Service data initialization (Be sure not to use usually.)
2, 0	Write 50Hz adjustment data to 60Hz, or vice versa.



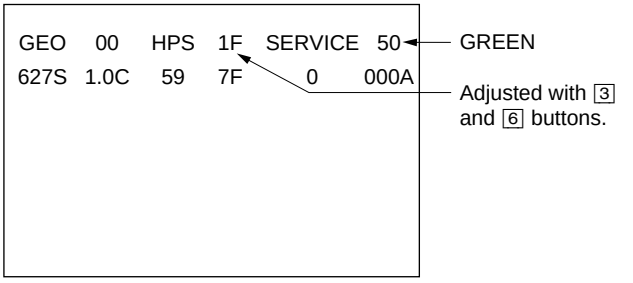
RM-952

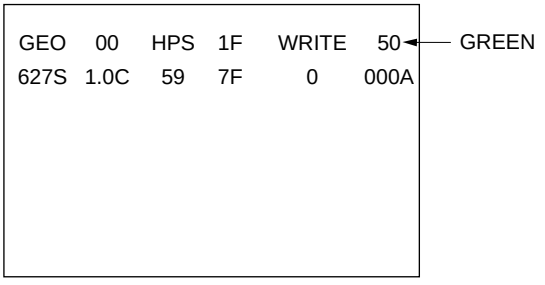
4-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

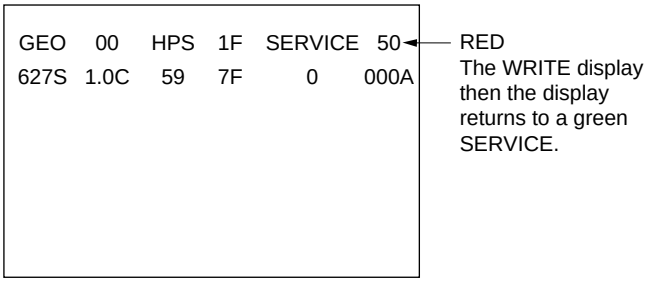
This explanation uses H-Position as an example.

1. Select “GEO 00 HPS” with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the [MUTING] button. (The display changes to WRITE.)
5. Execute the writing with the [0] button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)





Written with [MUTING]



Write executed with [0]

Use the same method for all Items. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

Note : 1. In [WRITE], the data for all items are written into memory together.

2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

Adjustment Item Table

Device Name	Functionality No	Functionality Name	Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slave Address	RAM Address (bit)
GEO	0	HPS	7	3F	H Position	50/60Hz	12 (7-2)	CXA2139S(88H)	82 (7-2)
	1	HSZ	1F	3F	H Size	50/60Hz	11 (7-2)		81 (7-2)
	2	PAP	1F	3F	Pin Amp	50/60Hz	13 (7-2)		83 (7-2)
	3	TLT	7	0F	Trapezium	50/60Hz	15 (7-4)		85 (7-4)
	4	VPS	1F	3F	V Position	50/60Hz	0F (7-2)		7F (7-2)
	5	VSZ	1F	3F	V Size	50/60Hz	0E (7-2)		7E (7-2)
	6	SCO	7	0F	S Correction	50/60Hz	10 (7-4)		80 (7-4)
	7	VLN	7	0F	V Linearity	50/60Hz	10 (3-0)		80 (3-0)
	8	BOW	7	0F	AFC Bow	50/60Hz	16 (7-4)		86 (7-4)
	9	AGL	7	0F	AFC-Angle	50/60Hz	16 (3-0)		86 (3-0)
	10	UPN	1F	3F	Upper Pin	50/60Hz	14 (7-2)		84 (7-2)
	11	LPN	1F	3F	Lower Pin	50/60Hz	18 (7-2)		88 (7-2)
	12	HBL	0	1	H Blanking on/off		18 (1)		67 (1)
	13	LBL	7	0F	Left H Blanking	50/60Hz	17 (7-4)		87 (7-4)
	14	RBL	7	0F	Right H Blanking	50/60Hz	17 (3-0)		87 (3-0)
WHB	0	RDR	2A	3F	R Drive	DYNAMIC/others	09 (7-2)	CXA2139S(88H)	8F (7-2)
	1	GDR	2A	3F	G Drive	DYNAMIC/others	0A (7-2)		90 (7-2)
	2	BDR	2A	3F	B Drive	DYNAMIC/others	0B (7-2)		91 (7-2)
	3	RCT	7	0F	R Cutoff	SECAM/others	07 (3-0)		93 (3-0)
	4	GCT	7	0F	G Cutoff	SECAM/others	08 (7-4)		94 (7-4)
	5	BCT	7	0F	B Cutoff	SECAM/others	08 (3-0)		94 (3-0)
	6	BMN	15	1F	Brightness Minimum Data				97
	7	SBR	28	3F	Sub Brightness Control				98
SAJ	0	PMX	33	3F	Picture Maximum Data			CXA2139S(88H)	96
	1	SHU	8	0F	Sub Hue Control	TV/Video			99
	2	SSH	3	0F	Sub Sharpness Control	TV/Video			9A
	3	SCL	1F	3F	Sub Color Control	NTSC/others			9B
VP	0	EHT	4	0F	EHT Comp	50/60Hz	15 (3-0)	CXA2139S(88H)	85 (3-0)
	1	GMA	2	03	Gamma Correction	Refer NVM map A4	0B (1-0)		1A3 (1-0)
	2	YDL	6	0F	Y Delay	PAL/SECAM/NTSC	0C (3-0)		8C (3-0)
	3	SST	1	03	SECAM ID Start Position		1B (1-0)		6A (1-0)
	4	SSP	1	03	SECAM ID Stop Position		1B (3-2)		6A (3-2)
	5	SLV	2	03	SECAM ID Level		1C (1-0)		6B (1-0)
	6	SBF	22	3F	SECAM BELL fO		1C (7-2)		6B (7-2)
	7	DYC	0	1	Dynamic Color on/off		0A (1)		59 (1)
	8	ABL	1	1	ABL Mode Switching	STANDARD always 0	09 (1)		58 (1)
	9	VTH	1	1	ABL Detection Vth Switching		09 (0)		58 (0)
	10	SFO	1	1	FO Switching for Sharpness	NTSC/others	05 (1)		198 (1)
	11	DCX	1	1	DC Trans. Ratio Switching		06 (1)		55(1)
	12	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/others	06 (0)		199 (0)

Adjustment Item Table

Device Name	Functionality No	Functionality Name	Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slave Address	RAM Address (bit)
VP	13	HDW	0	1	H Drive Pulse Width Switch		00 (6)		4F (6)
	14	AFC	1	03	AFC Gain Control	TV/Video/Text	0F (1-0)		8D (1-0)
	15	HOS	7	0F	H Oscillation		0C (7-4)		5B (7-4)
	16	HSS	0	1	Slice Level of H Sync Sep.		0D (1)		5C (1)
	17	VSS	0	1	Slice Level of V Sync Sep.		0D (0)		5C (0)
	18	HMS	0	1	Macro Vision C/m off/on	50/60Hz	0E (0)		7E (0)
	19	YUV	0	1	YUV Switch Control		01 (0)		50 (0)
	20	CDV	1	3	CD mode for Video	Video only	0D (5-4)		1A1 (5-4)
	21	RON	1	1	R ON	not memorized	01 (3)		50 (3)
	22	GON	1	1	G ON	not memorized	01 (2)		50 (2)
	23	BON	1	1	B ON	not memorized	01 (1)		50 (1)
	24	PON	1	1	P ON	not memorized	00 (7)		4F (7)
	25	BLK	0	1	BLK Off		12 (0)		61 (0)
	26	VMC	0	1	VM Off		13 (0)		62 (0)
AP	0	INF	0	3F	Input Attenuation When surround off		00 (5-0)	TDA7429	19F (5-0)
	1	INS	0	3f	Input Attenuation When surround on				1A0 (5-0)
	2	PHI	0	3	Phase 1 Register Selection		02		76 (1-0)
	3	PH2	0	3	Phase 2 Register Selection				76 (3-2)
	4	PH3	0	3	Phase 3 Register Selection				76 (5-4)
	5	PH4	0	3	Phase 4 Register Selection				76 (7-6)
	6	BCS	2	3	Bass Center Shift		#4 (3-0)		1A8 (1-0)
	7	TCS	2	3	Treble Center Shift		#5 (3-0)		1A9 (1-0)
	8	TRF	2	3	RF Treble Offset		#5 (3-0)		1A9 (5-4)
MSP	0	WST	15	FF	W/G Stereo Threshold			MSP3415D(84H)	157 (7-0)
	1	WBT	EA	FF	W/G Bilingual Threshold				158 (7-0)
	2	WLL	5	FF	W/G Monaural Threshold				159 (7-0)
	3	WAC	0	0F	W/G Agreement Count				15A (3-0)
	4	WDL	30	FF	W/G Search Delay				15B (7-0)
	5	NDL	20	FF	NICAM Search Delay				15C (7-0)
	6	SDL	10	FF	Stereo status Read Delay				15D (7-0)
	7	AGC	1	1	AGC Switch Auto/Constant		BB (7)		108 (7)
	8	REL	28	3F	AGC Gain at Constant Mode		BB (6-1)		108 (6-1)
	9	CRM	0	1	Carrier muting on/off		BB (9)		107 (1)
	10	ACO	1	1	Audio Clock out on/off		83 (5)		10C (5)
	11	FP	1B	7F	FM Prescale for non-M system		0E (7-0)		16C (6-0)
	12	FPM	32	7F	FM Prescale for M system		0E (7-0)		16D (6-0)
	13	FH	36	7F	FM Prescale for HDEV		0E (7-0)		16E (6-0)
	14	FHM	65	7F	FM Prescale for HDEV and M		0E (7-0)		16F (6-0)
	15	WGP	2A	7F	W/G Prescale		0E (7-0)		17O (6-0)
	16	NIP	6D	7F	NICAM Prescale		10 (7-0)		138 (6-0)
	17	ERR	50	FF	Auto FM switch Threshold		21 (10-3)		166 (7-0)
	18	VOL	6D	FF	Loud Speaker gain 7000h to 7ff0h		0000 (15-4)		1A7 (7-0)

Adjustment Item Table

Device Name	Functionality No	Functionality Name	Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit
TXT	0	TXH	1	3	Teletext Horizontal Position			(58H)	18D (1-0)
	1	TXV	0	3	Teletext Vertical Position				18D (6-4)
OPM	0	OSH	0A	3F	OSD H Position	Option-Misc.			AC (7-2)
	1	COM	0	03	Comb Selection				A5 (7-6)
	2	APC	1	1	APC Switch				A4 (5)
	3	TSY	0	03	TV Sys at Auto TV Sys				A4 (4-3)
	4	MUT	0	1	No Signal Mute				A4 (0)
	5	AFM	0	1	Auto FM switch				A4 (1)
	6	RFB	0	3	C-BPF Control				A5 (5-4)
	7	TVO	0	7	Tilt to V-Angle offset				A5 (2-0)
	8	DBL	0	1	Disable Blueback Function				A4 (2)
OPB	0	OP1	FF	FF	Optional Bits 1 (see below)	Option-Bits.			45
	1	OP2	1	FF	Optional Bits 2 (see below)				46
	2	OP3	0	FF	Optional Bits 3 (see below)				47

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory.
  In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

ITEM INFORMATION.
No. OPB0 OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XG29M21	1	1	1	1	1	1	1	1

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XG29M21	0	0	1	0	0	0	1	1

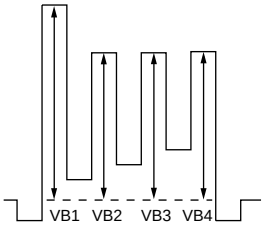
No. OPB2 OP3

Item	PIC Rotate	2199 Curve	Auto PIC	Auto TV sys	US ST	AV Mono	11 KEY	Color SW
KV-XG29M21	1	0	1	0	0	1	0	0

4-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT

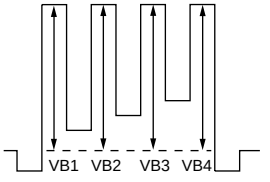
1. Input a PAL color-bar.
2. Set to the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
3. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
4. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Adjust SAJ 3 'SCL' as step 2 to 5 when receiving NTSC color-bar.



VB2 = VB3 = VB4

SUB HUE ADJUSTMENT

1. Select Video 1.
2. Input a NTSC color-bar, video into Video 1.
3. Set the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 1 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].

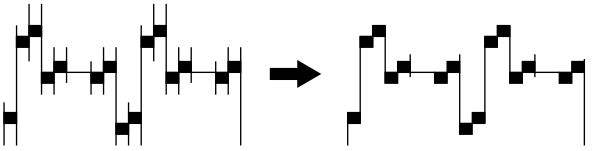


VB1 = VB2 = VB3 = VB4

6. Press [MUTING] → [0] of the commander to write the data.

BELL FILTER ADJUSTMENT

1. Input SECAM color-bar signal.
2. Connect the dual-trace oscilloscope to CN303 pin ⑨ (not mounted).
3. Adjust SERVICE MODE, ITEMS 'SBF' as shown below.



4-4. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

When replacing IC003 (MEMORY), be sure to change IC001 (µ-COM) to the following new IC at the same time.
IC001(µ-CON):
CXP86449-627S

1. Enter to Service Mode.

2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.

3. Call each item number and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the items with fine adjustment.
   Write the data per each item number ([MUTING] +[0]).

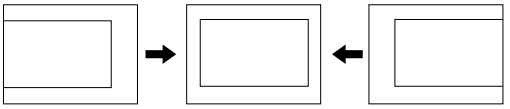
4. Select item numbers "OPB0" (OP1), "OPB1" (OP2) and "OPB2" (OP3) and respectively set the bit per model with command buttons [3] and [6].

5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
   (This will also cancel Service Mode.)

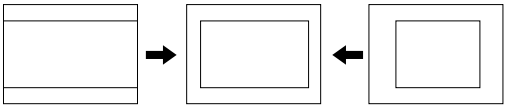
4-5. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

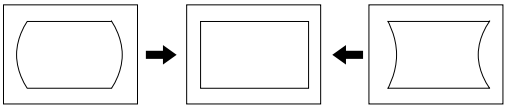
GEO 0 HPS (H POSITION)



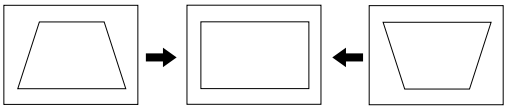
GEO 1 HSZ (H SIZE)



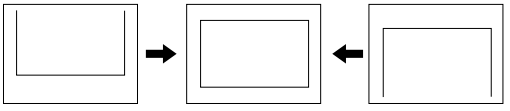
GEO 2 PAP (PIN AMP)



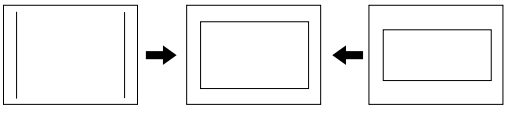
GEO 3 TLT (TRAPEZIUM)



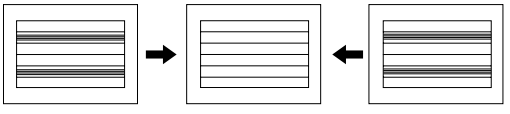
GEO 4 VPS (V POSITION)



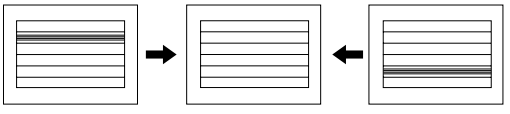
GEO 5 VSZ (V SIZE)



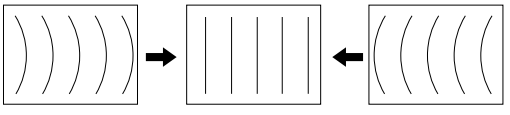
GEO 6 SCO (VERTICAL S-Correction)



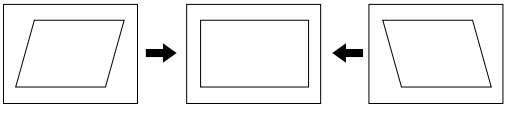
GEO 7 VLN (V LINEARITY)



GEO 8 BOW (AFC.BOW)

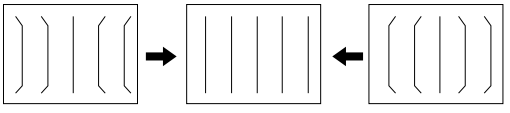


GEO 9 AGL (AFC.ANGLE)



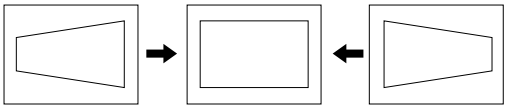
GEO 0A UCP (UPPER CORNER PIN)

GEO 0B LCP (LOWER CORNER PIN)



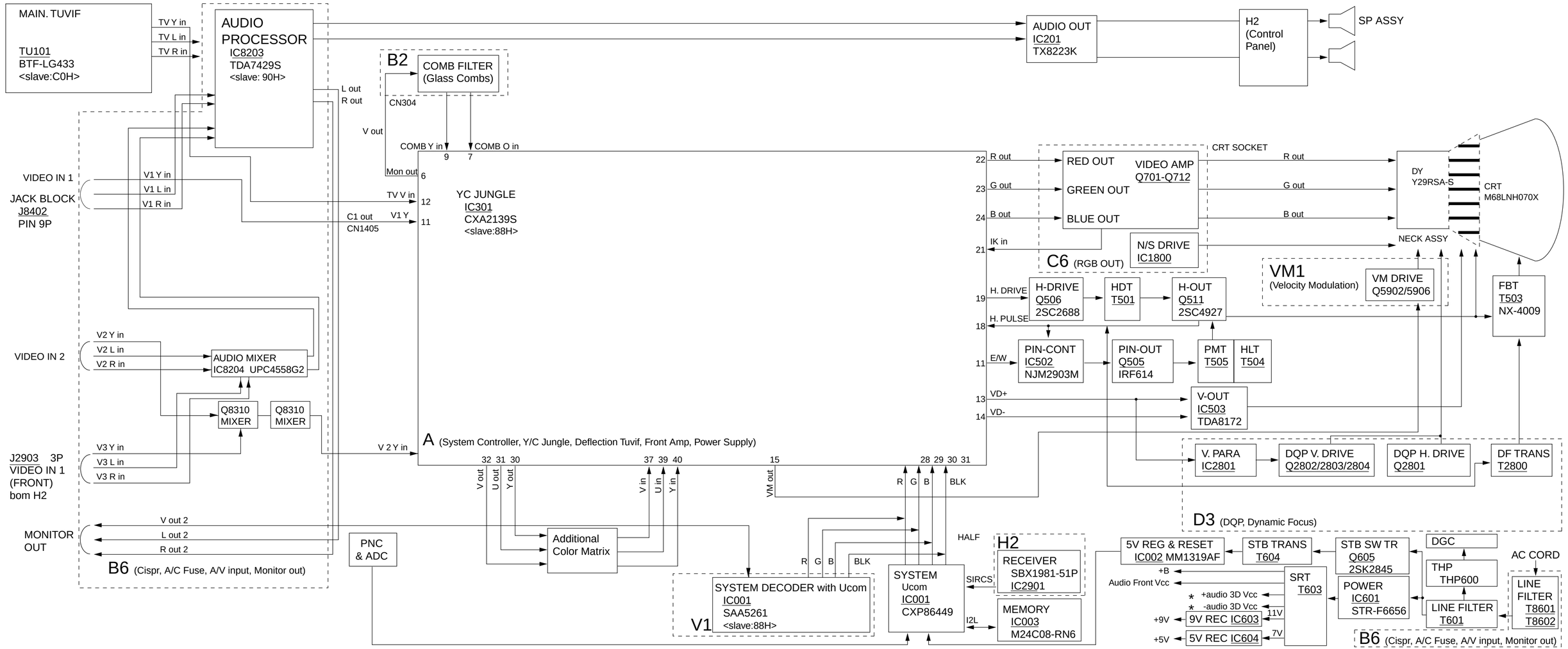
PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (Rotate RV1801)



SECTION 5 DIAGRAM

5-1. BLOCK DIAGRAM



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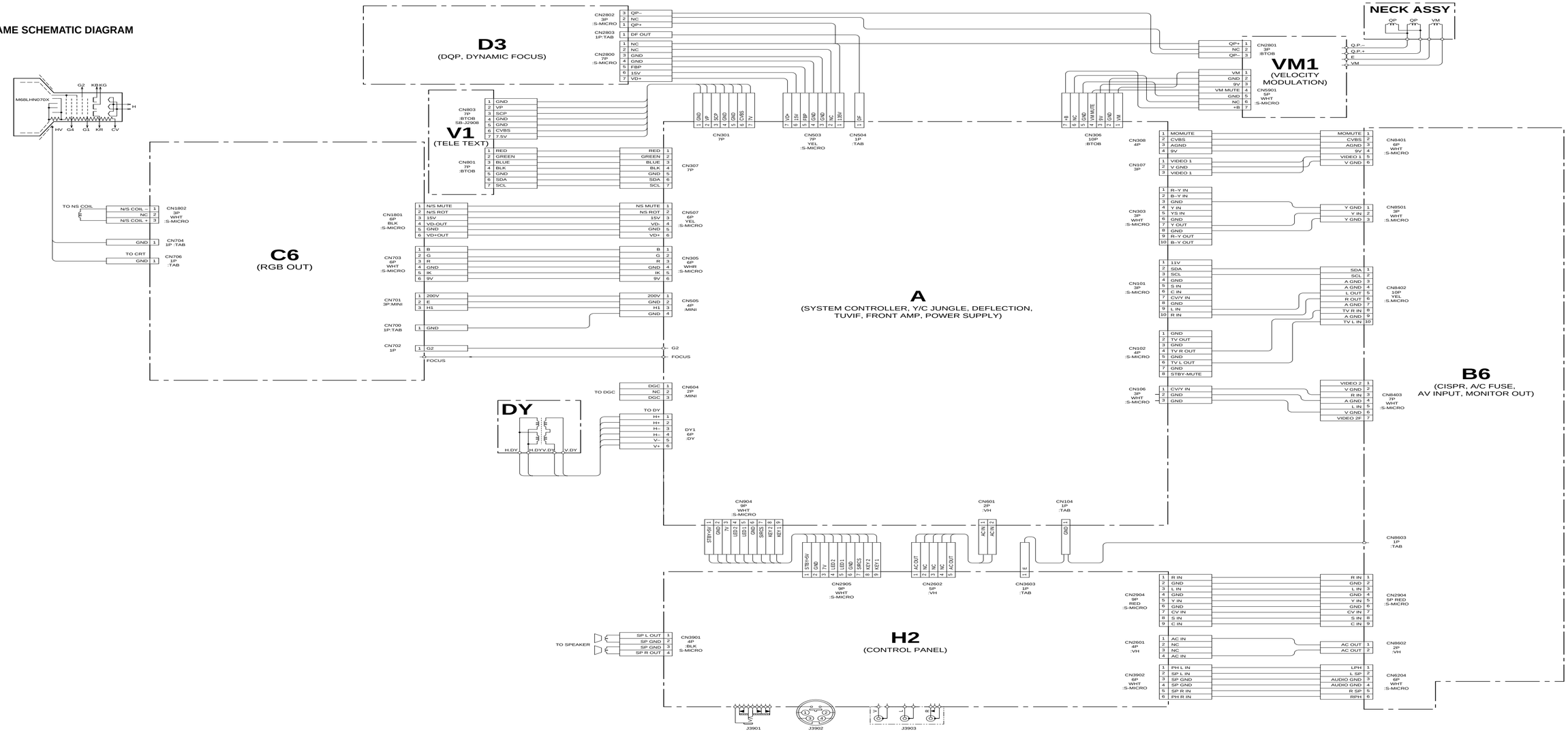
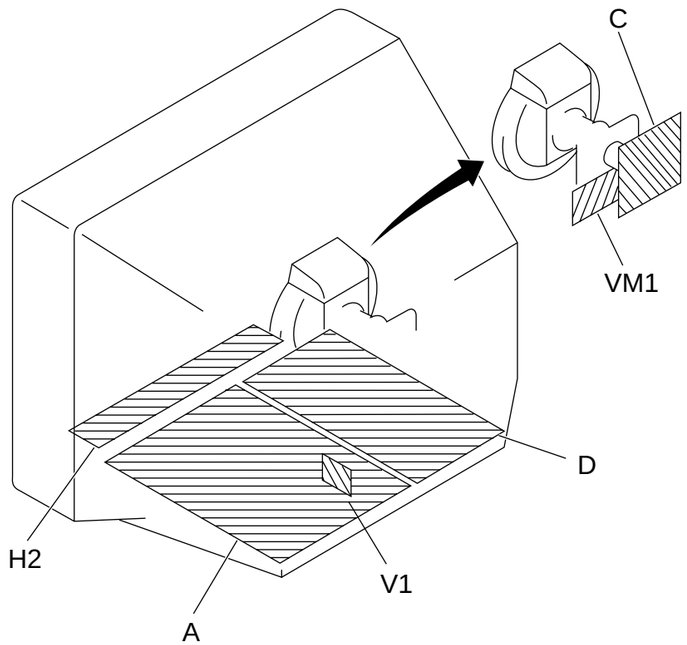
5-2. FRAME SCHEMATIC DIAGRAM



5-3. CIRCUIT BOARDS LOCATION



5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)
- : nonflammable resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Readings are taken with a color-bar signal input.**
  no mark : PAL
  ( ) : SECAM
  [ ] : NTSC 3.58
  « » : NTSC 4.43
- **Readings are taken with a 10 MΩ digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltages are in V.**
- * **: Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B + bus.**
- **: B – bus.**
- **: signal path.**

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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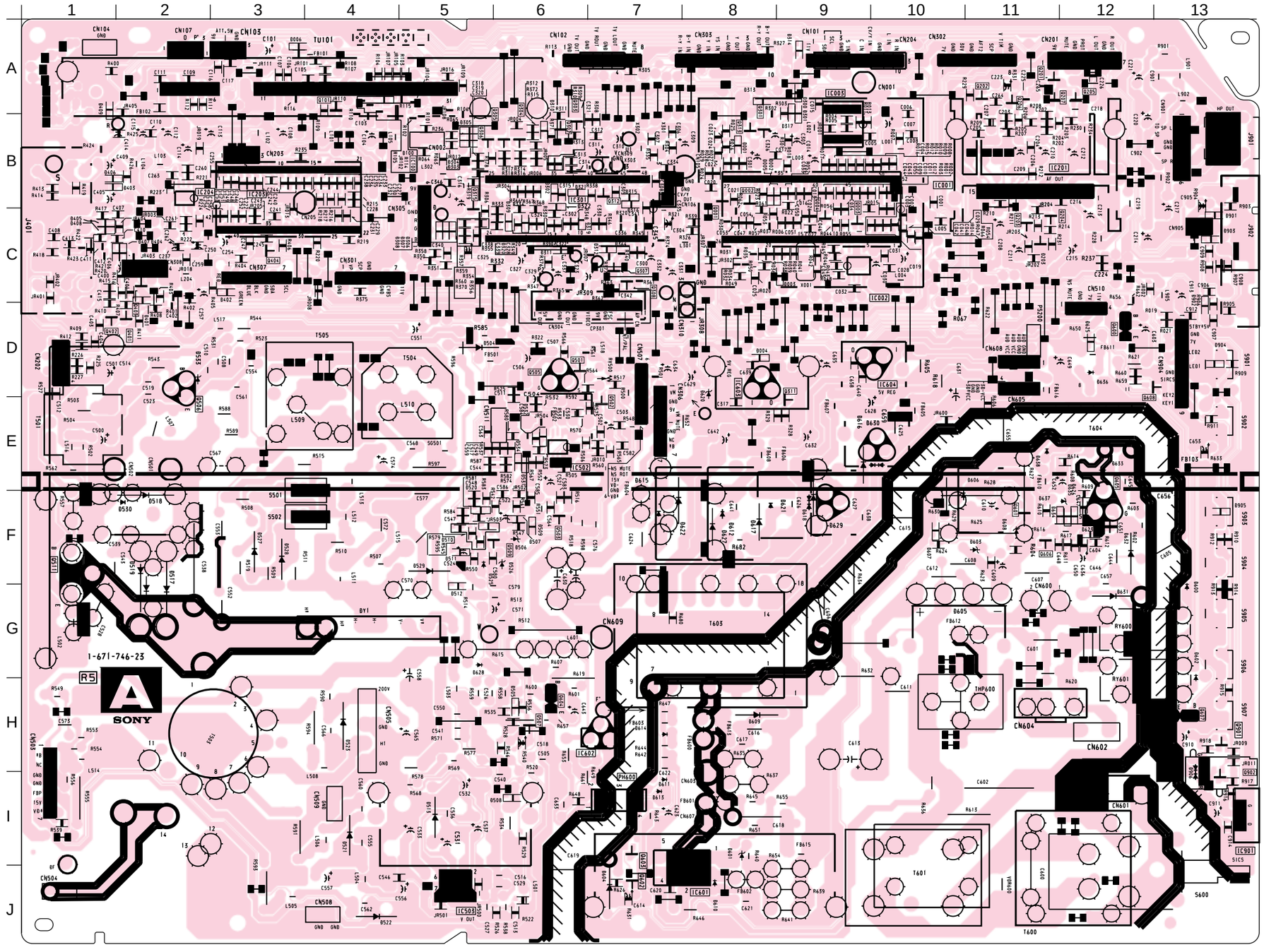
A [SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

PRINTED WIRING BOARD

– A Board –

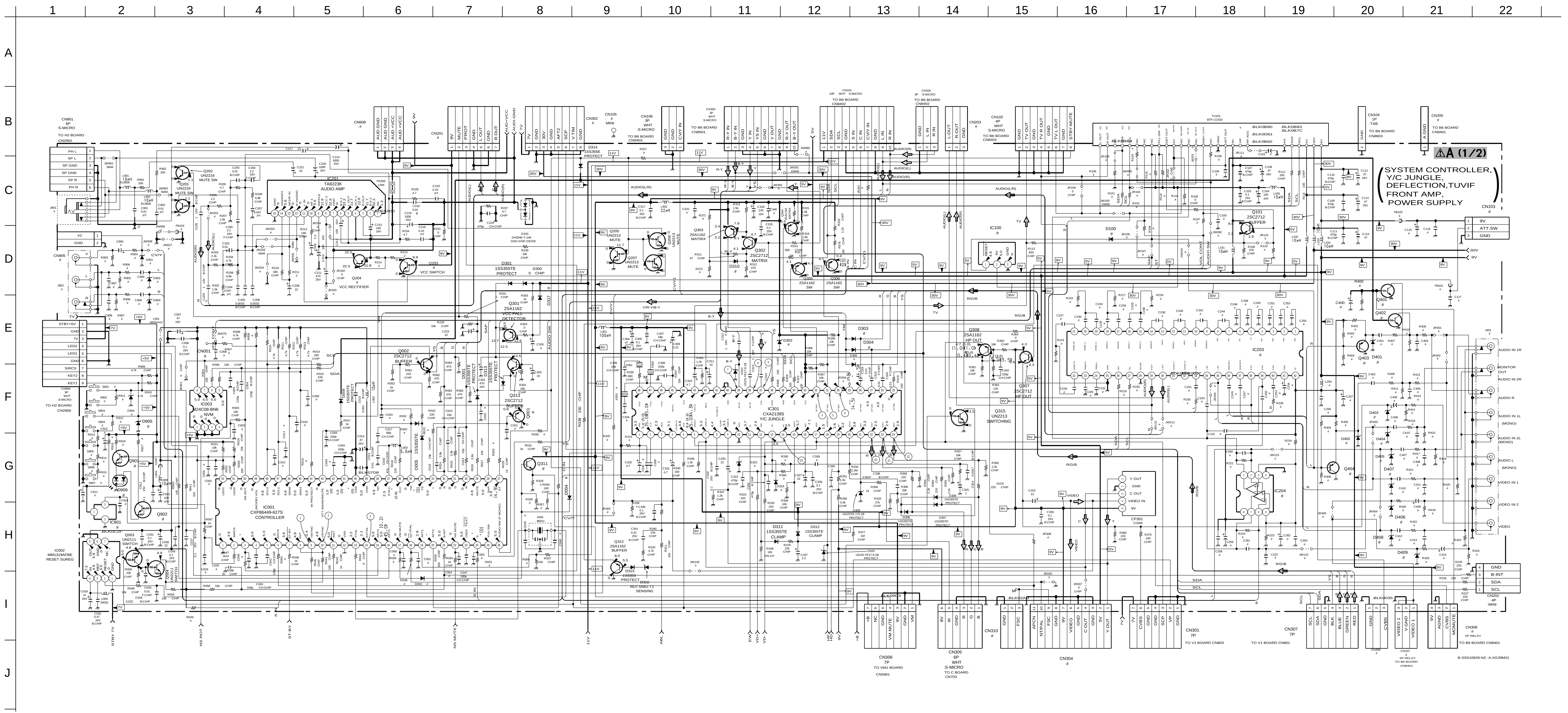


NOTE:
The circuit indicated at left contains high voltage of over 600 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

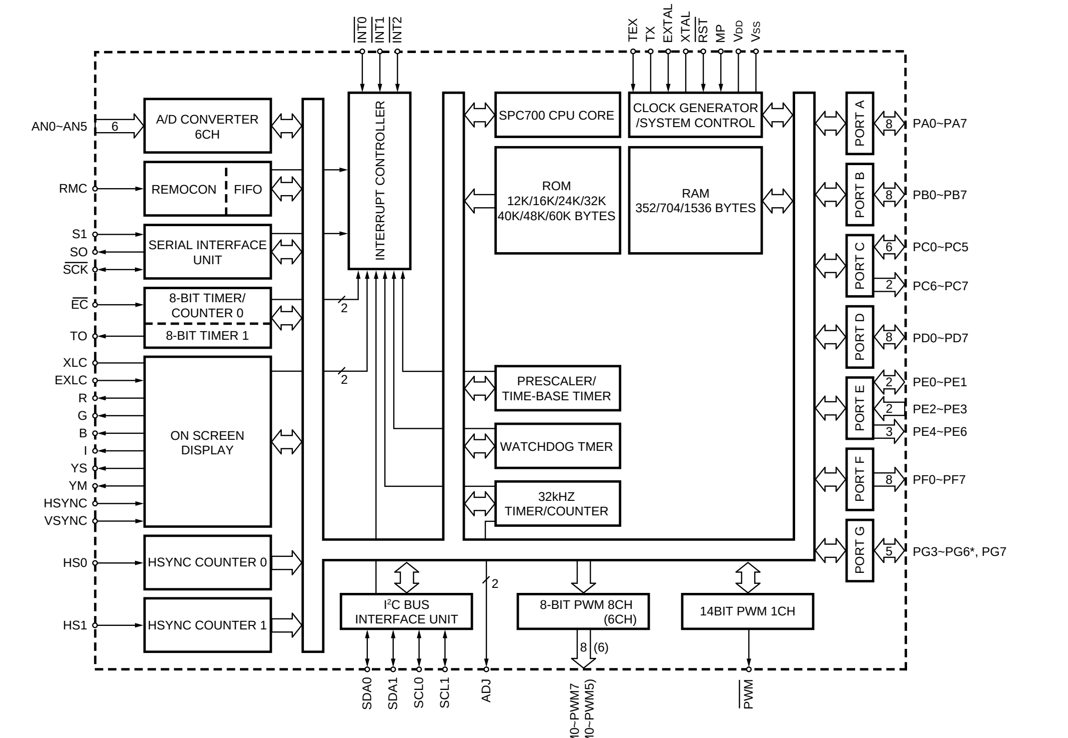
A BOARD

IC		DIODE		D533	D-2
IC001	B-10	D001	B-8	D534	E-6
IC002	C-10	D002	B-8	D600	G-13
IC003	A-9	D003	C-9	D601	I-8
IC100	B-5			D602	G-13
IC201	B-11	D004	D-8	D603	F-11
IC203	B-3	D005	B-8	D604	J-7
IC204	B-2	D006	A-3	D605	G-10
IC301	B-6	D100	B-5	D606	E-11
IC502	E-6	D203	C-11	D607	F-10
IC503	J-5	D300	A-9	D608	F-11
IC601	I-8	D301	B-9	D609	H-8
IC602	H-7	D302	B-6	D610	J-8
IC603	D-8	D303	B-5	D611	I-7
IC604	D-10	D304	B-5	D612	F-8
IC901	I-13	D305	B-5	D613	I-7
PH600	H-7	D306	C-5	D614	H-7
		D307	C-5	D615	E-7
TRANSISTOR		D308	B-5	D616	E-9
		D309	B-6	D617	F-8
Q001	B-8	D310	A-6	D618	F-9
Q002	B-8	D311	C-6	D620	D-8
Q003	C-9	D312	C-6	D621	F-9
Q004	C-9	D313	A-8	D622	F-8
Q101	A-4	D315	B-7	D623	F-12
Q201	A-11	D316	C-7	D624	F-12
Q202	A-11	D317	B-9	D625	D-12
Q203	C-11	D314	A-9	D627	F-8
Q204	C-12	D319	C-7	D628	G-5
Q205	A-12	D320	C-6	D629	F-9
Q206	A-11	D321	B-6	D630	E-10
Q207	A-12	D322	B-6	D631	G-12
Q301	B-8	D401	D-2	D632	F-12
Q302	B-6	D402	C-3	D633	E-12
Q303	A-6	D403	B-2	D634	F-11
Q304	B-6	D404	C-2	D635	F-12
Q305	B-5	D405	C-1	D636	D-12
Q306	B-5	D406	B-1	D637	F-11
Q307	C-7	D407	C-2	D638	E-11
Q308	C-7	D408	C-1	D901	C-13
Q311	D-9	D409	A-1	D902	D-13
Q312	B-7	D504	D-5	D903	C-13
Q313	B-8	D505	H-6	D904	D-13
Q315	B-5	D506	F-6	D905	F-13
Q401	D-2	D507	F-6	D906	I-13
Q402	D-1	D508	I-5		
Q403	D-2	D509	F-6		
Q404	C-3	D510	F-5		
Q501	D-6	D511	F-5		
Q502	E-7	D512	G-5		
Q503	F-6	D513	I-5		
Q505	D-6	D517	F-2		
Q506	D-2	D518	F-2		
Q507	H-6	D519	F-2		
Q509	F-6	D520	E-5		
Q511	F-1	D521	I-4		
Q600	D-12	D522	J-4		
Q601	F-11	D523	H-4		
Q602	J-7	D525	F-5		
Q603	I-7	D526	F-6		
Q604	H-6	D527	F-3		
Q605	E-12	D528	F-3		
Q606	F-11	D529	F-5		
Q607	H-13	D530	F-2		
Q608	D-12	D531	E-6		
Q901	H-13	D532	E-6		
Q902	H-13				

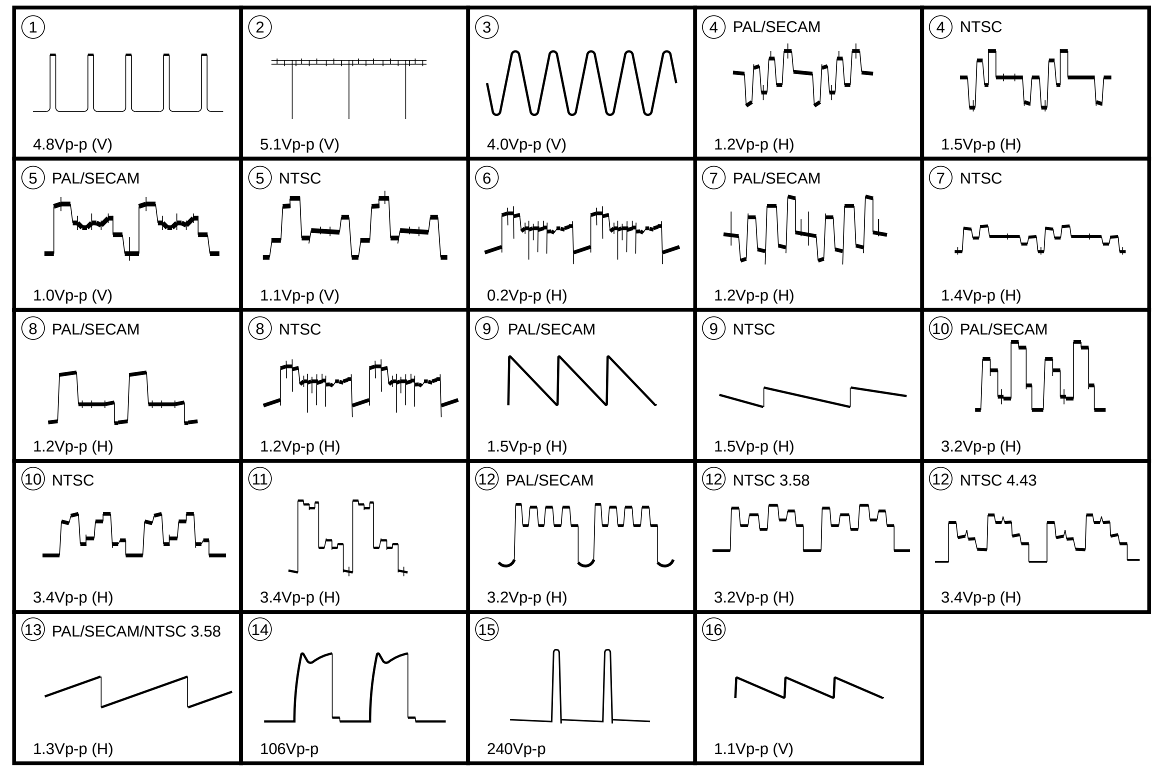
(1) Schematic Diagram of A(1/2) Board

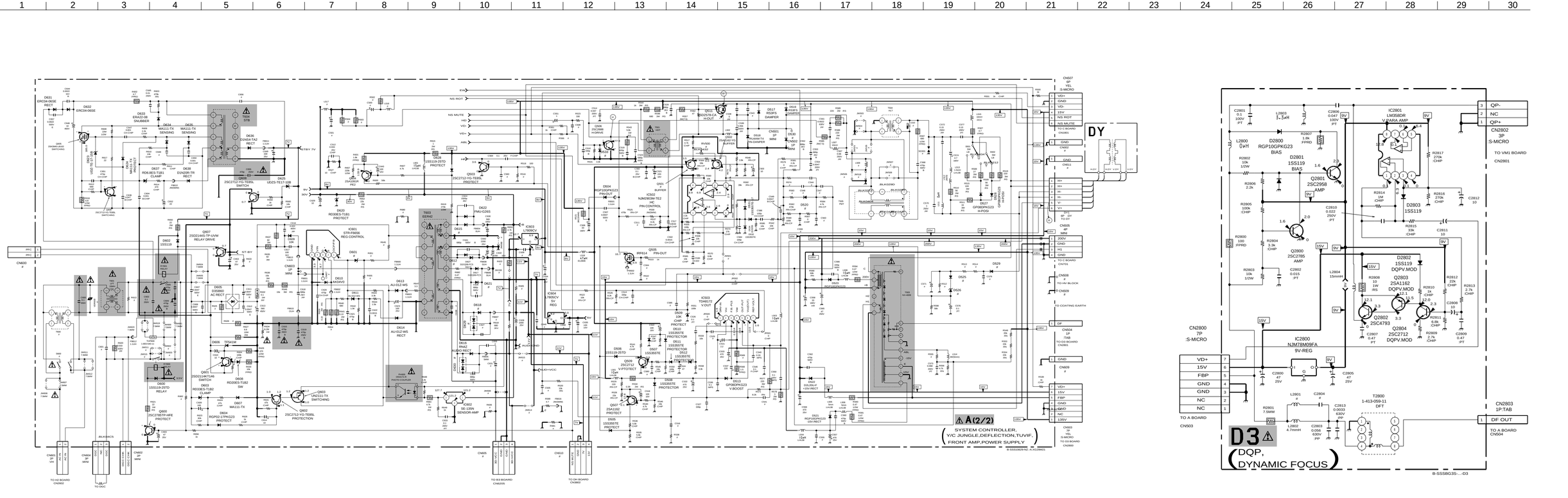

A (1/2)
SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION,TUVIF FRONT AMP, POWER SUPPLY
IC001 CXP86449-627S CONTROLLER
IC003 M24C08-BN6 NVM
IC201 TA8223K AUDIO AMP
IC301 CXA2139S Y/C JUNGLE
IC203
IC204
IC100
IC901
IC002 MM1319AFBE RESET SUREG
TU101 BTF-LG433
B-SSS10629-NZ.-A.XG29M21

A BOARD IC001 CXP86449-627S


A/D CONVERTER 6CH
REMOCON
FIFO
SERIAL INTERFACE UNIT
8-BIT TIMER/ COUNTER 0
8-BIT TIMER 1
ON SCREEN DISPLAY
HSYNC COUNTER 0
HSYNC COUNTER 1
INTERRUPT CONTROLLER
SPC700 CPU CORE
CLOCK GENERATOR /SYSTEM CONTROL
ROM 12K/16K/24K/32K 40K/48K/60K BYTES
RAM 352/704/1536 BYTES
PRESCALER/ TIME-BASE TIMER
WATCHDOG TMER
32kHZ TIMER/COUNTER
I²C BUS INTERFACE UNIT
8-BIT PWM 8CH (6CH)
14BIT PWM 1CH
PORT A
PORT B
PORT C
PORT D
PORT E
PORT F
PORT G
AN0~AN5
RMC
S1
SO
SCK
EC
TO
XLC
EXLC
R
G
B
I
YS
YM
HSYNC
VSYNC
HS0
HS1
INT0
INT1
INT2
TEX
TX
EXTAL
XTAL
RST
MP
VDD
VSS
PA0~PA7
PB0~PB7
PC0~PC5
PC6~PC7
PD0~PD7
PE0~PE1
PE2~PE3
PE4~PE6
PF0~PF7
PG3~PG6*, PG7
SDA0
SDA1
SCL0
SCL1
ADJ
PWM0~PWM7 (PWM0~PWM5)
PWM

A BOARD WAVEFORMS


① 4.8Vp-p (V)
② 5.1Vp-p (V)
③ 4.0Vp-p (V)
④ PAL/SECAM 1.2Vp-p (H)
④ NTSC 1.5Vp-p (H)
⑤ PAL/SECAM 1.0Vp-p (V)
⑤ NTSC 1.1Vp-p (V)
⑥ 0.2Vp-p (H)
⑦ PAL/SECAM 1.2Vp-p (H)
⑦ NTSC 1.4Vp-p (H)
⑧ PAL/SECAM 1.2Vp-p (H)
⑧ NTSC 1.2Vp-p (H)
⑨ PAL/SECAM 1.5Vp-p (H)
⑨ NTSC 1.5Vp-p (H)
⑩ PAL/SECAM 3.2Vp-p (H)
⑩ NTSC 3.4Vp-p (H)
⑪ 3.4Vp-p (H)
⑫ PAL/SECAM 3.2Vp-p (H)
⑫ NTSC 3.58 3.2Vp-p (H)
⑫ NTSC 4.43 3.4Vp-p (H)
⑬ PAL/SECAM/NTSC 3.58 1.3Vp-p (H)
⑭ 106Vp-p
⑮ 240Vp-p
⑯ 1.1Vp-p (V)



Schematic diagram
← A (1/2) board

– 53 –

Schematic diagrams
A (2/2) D3 boards →

– 54 –

– 55 –

– 56 –

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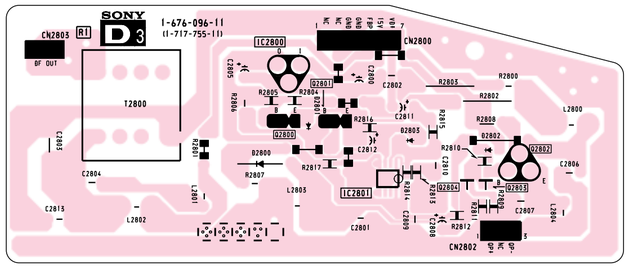
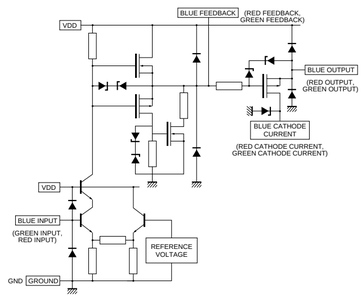
D3 [DOP, DYNAMIC FOCUS]

PRINTED WIRING BOARD

– D3 Board –

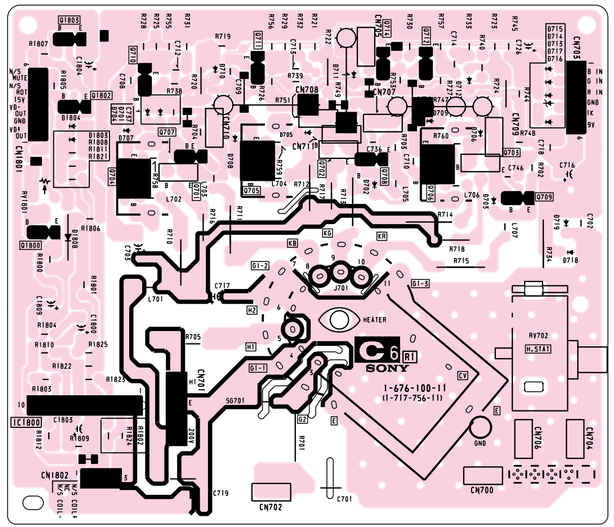


C6 BOARD IC701 STV5112



C6 [RGB OUT PICTURE ROTATION]

– C6 Board –

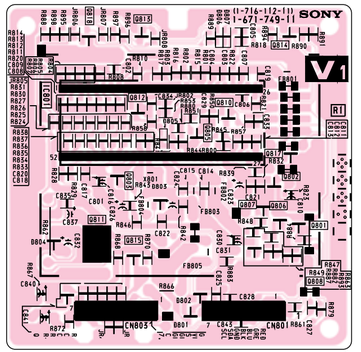


C6 BOARD WAVEFORMS

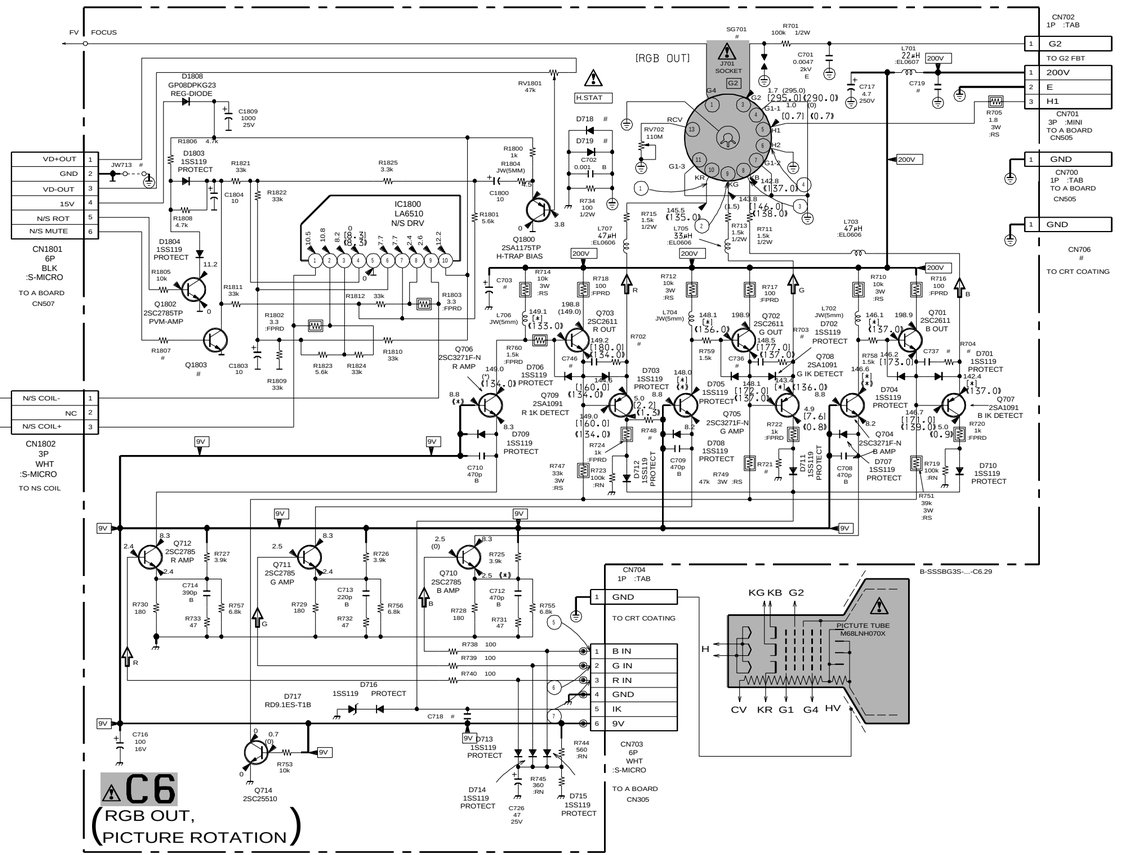
① NTSC : 15.7Vp-p (H)	① PAL/SECAM : 135V	② NTSC : 13.6Vp-p (H)	② PAL/SECAM : 135Vp-p (H)	③ NTSC : 15.0Vp-p (H)	③ PAL/SECAM : 144Vp-p (H)
④ 23.0Vp-p (H)	⑤ 3.3Vp-p (H)	⑥ 3.3Vp-p (H)	⑦ 3.3Vp-p (H)		

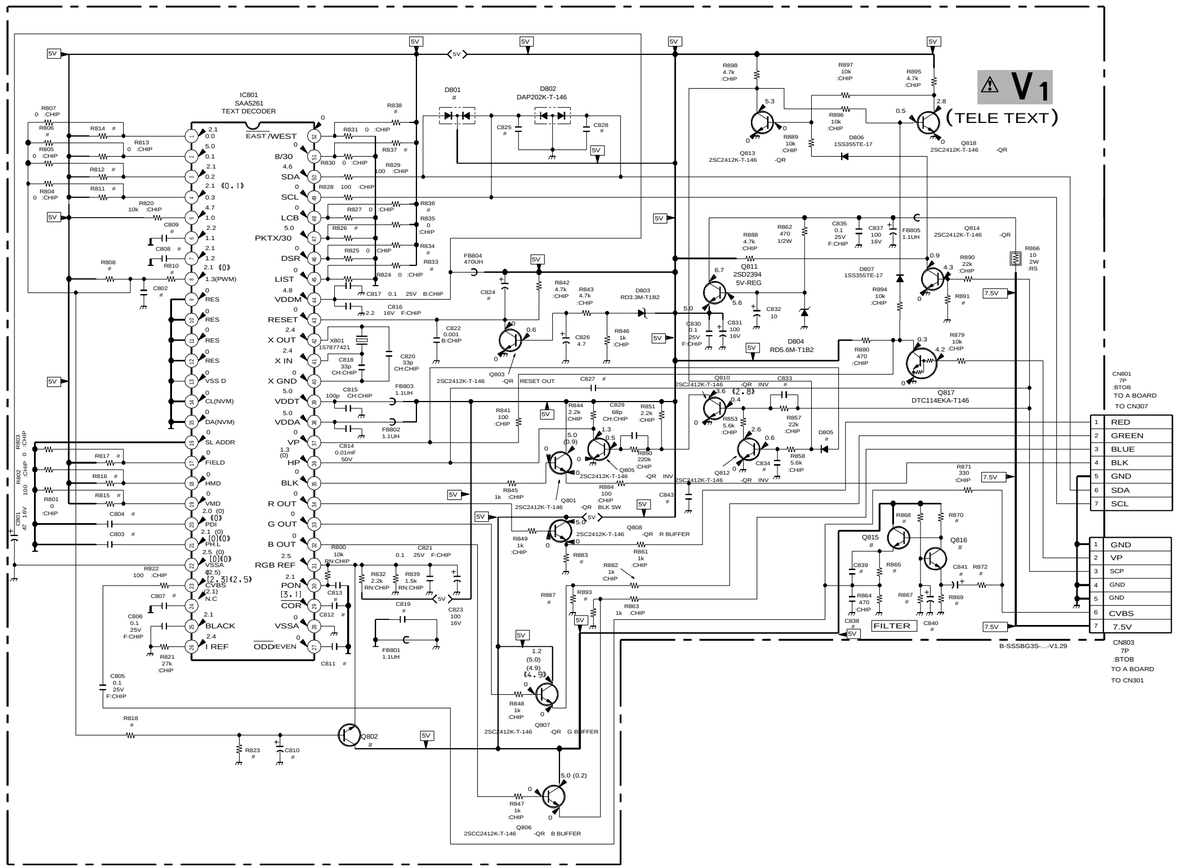
V1 [TELE TEXT]

– V1 Board –

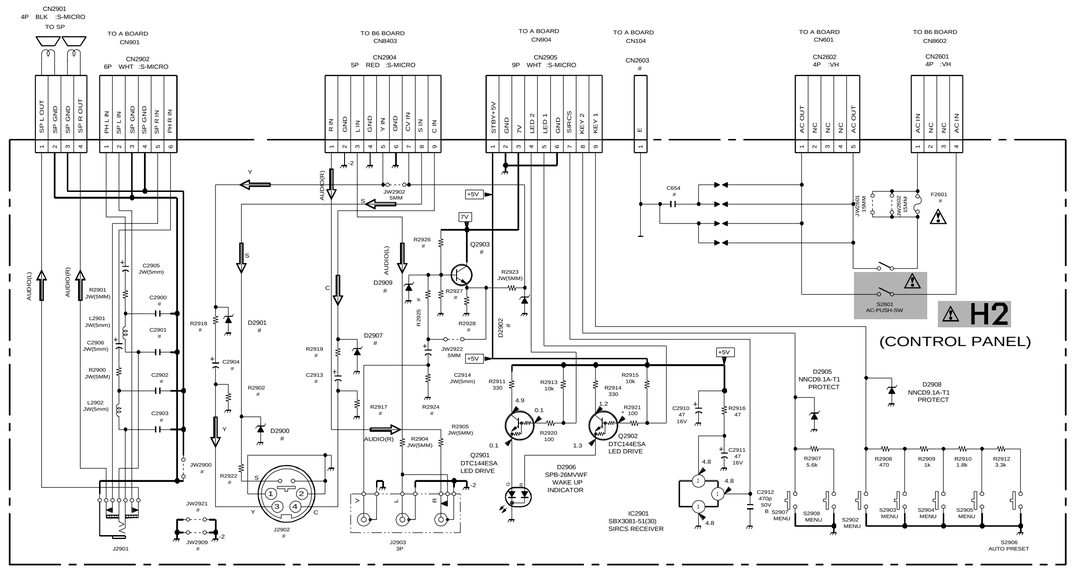


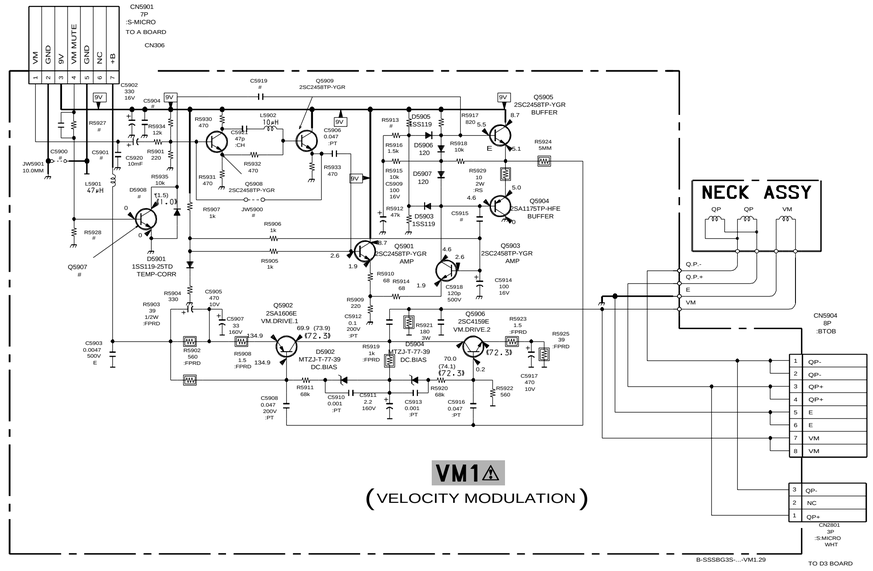
(3) Schematic Diagrams of C6 and V1 Boards





(4) Schematic Diagrams of H2 and VM1 Boards

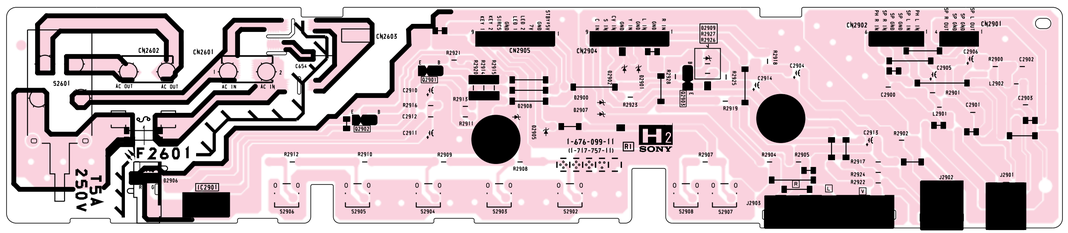




H2 [CONTROL PANEL]

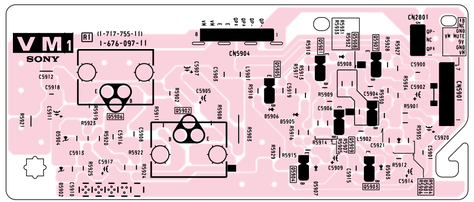
PRINTED WIRING BOARDS

– H2 Board –



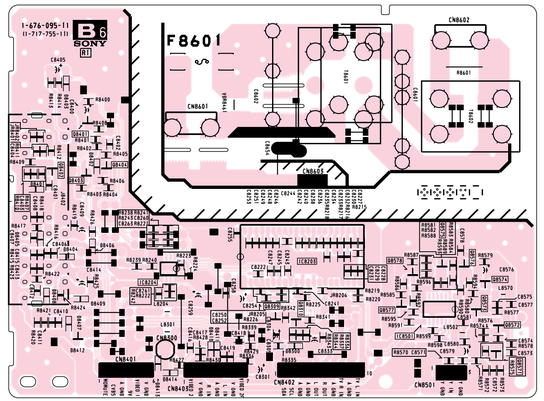
VM1 [VELOCITY MODULATION]

– VM1 Board –

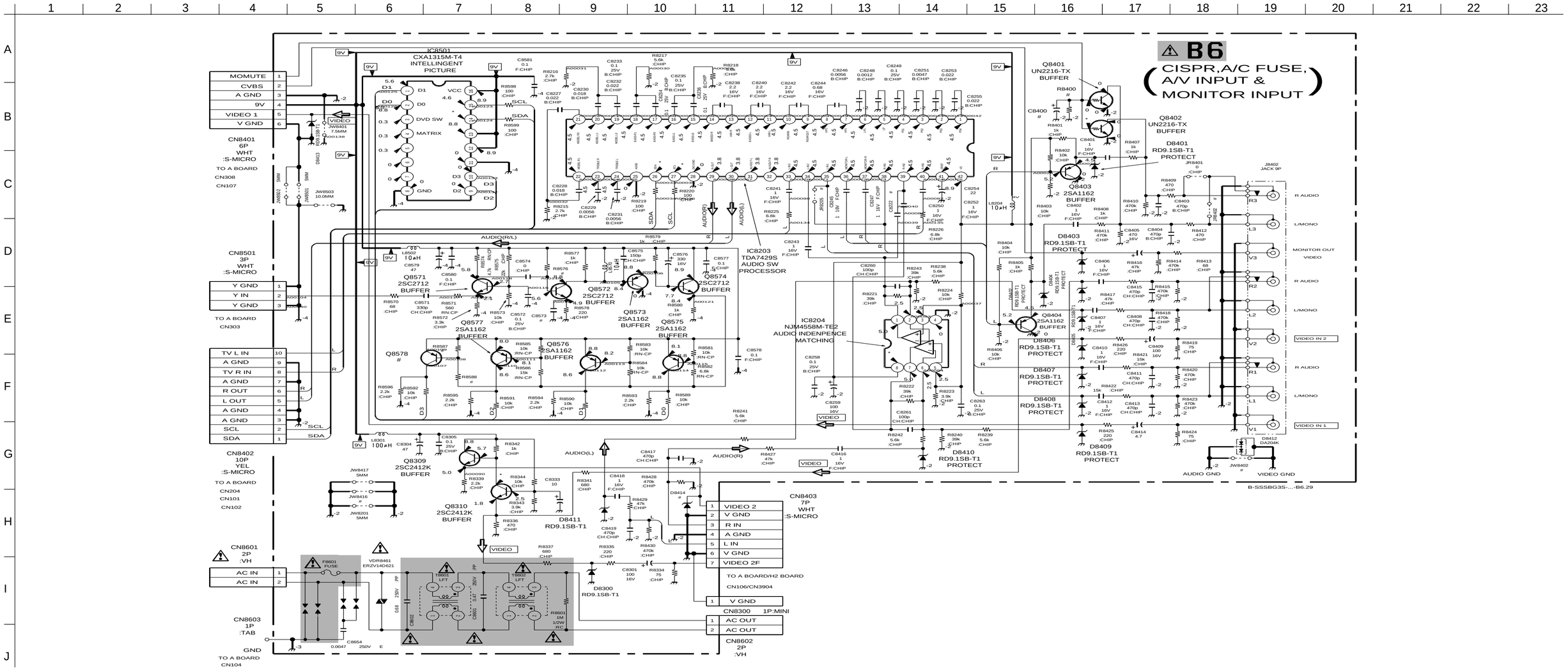


B6 [CISPR, A/C FUSE, AV INPUT, MONITOR INPUT]

– B6 Board –



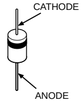
(5) Schematic Diagram of B6 Board



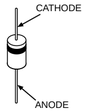
5-5. SEMICONDUCTORS

DIODE

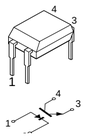
AK04V0
AU-01Z-V1
D2L20U
EL1Z
ERA22-08
GP08D
NNCD9.1A-T1
RD33EB3T
RGP02-17EL-6433



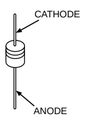
ERC04-06SE
RN4Z
RS3FS
RU4AM-T4
31DQ06-FC5



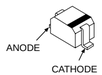
ON3171-R



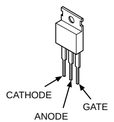
D1NS4
D1N20R
HZS9.1NB2
RD39ES-B2
RD20ES-B2
RD30ESB2
RD6.8ES-B1
1SS119-25



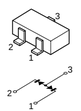
DTZ10B
DTZ-TT11-15B
MA111-(K8).S0
RD7.5SB1-T1
RD9.1S-B
UDZS-TE17-5.1B
UDZS-TE17-9.1B
1SS355TE-17



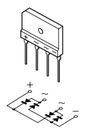
5P6M



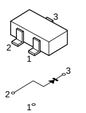
DA204K
DAP202K



D3SB60

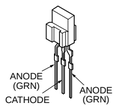


RD3.3M-B2
RD3.6M-B2



LED

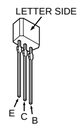
SPB-26MVWF



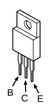
TRANSISTOR

DTC114EK
UN2111
UN2211
UN2213
UN2216
2SA1162-G
2SC1623-L5L6
2SC2712-YG
2SD2114K

DTC144ESA
2SA1175-HFE
2SC2785-HFE

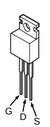


2SA1606-E
2SC4159-E
2SC4793
2SD2394-EF

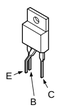


2SC2458-YGR
2SD2144S-UVW

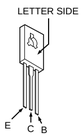
IRF614



2SK2845-LB102

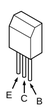


2SC2611
2SC2688-LK

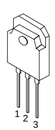


2SA1091-0
2SC2551-0

2SC2958

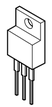


2SD2578-CA



KV-XG29M21
RM-952

NJM78M09FA
TA7805S

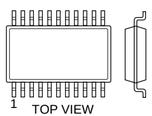


IC

CXA1315M (16PIN)
CXA2139S (48PIN)
CXP86449-627S (64PIN)
M24C08-BN6 (8PIN)
TDA7429S (15PIN)
SAA5261

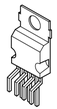
Dual In-line Package
Pin 6~98

LM358D (8PIN)
MM1319AFBE (7PIN)
NJM2903M (8PIN)
µPC4558G2 (8PIN)
UPD6124G-212

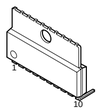


SE-135N

TDA8172

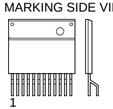


LA6510



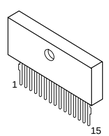
STR-F6656

MARKING SIDE VIEW



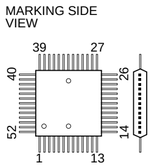
Zig-zag In -line Package
Pin 6~99

TA8223K



RU-1P

MARKING SIDE VIEW



SECTION 6
EXPLODED VIEWS

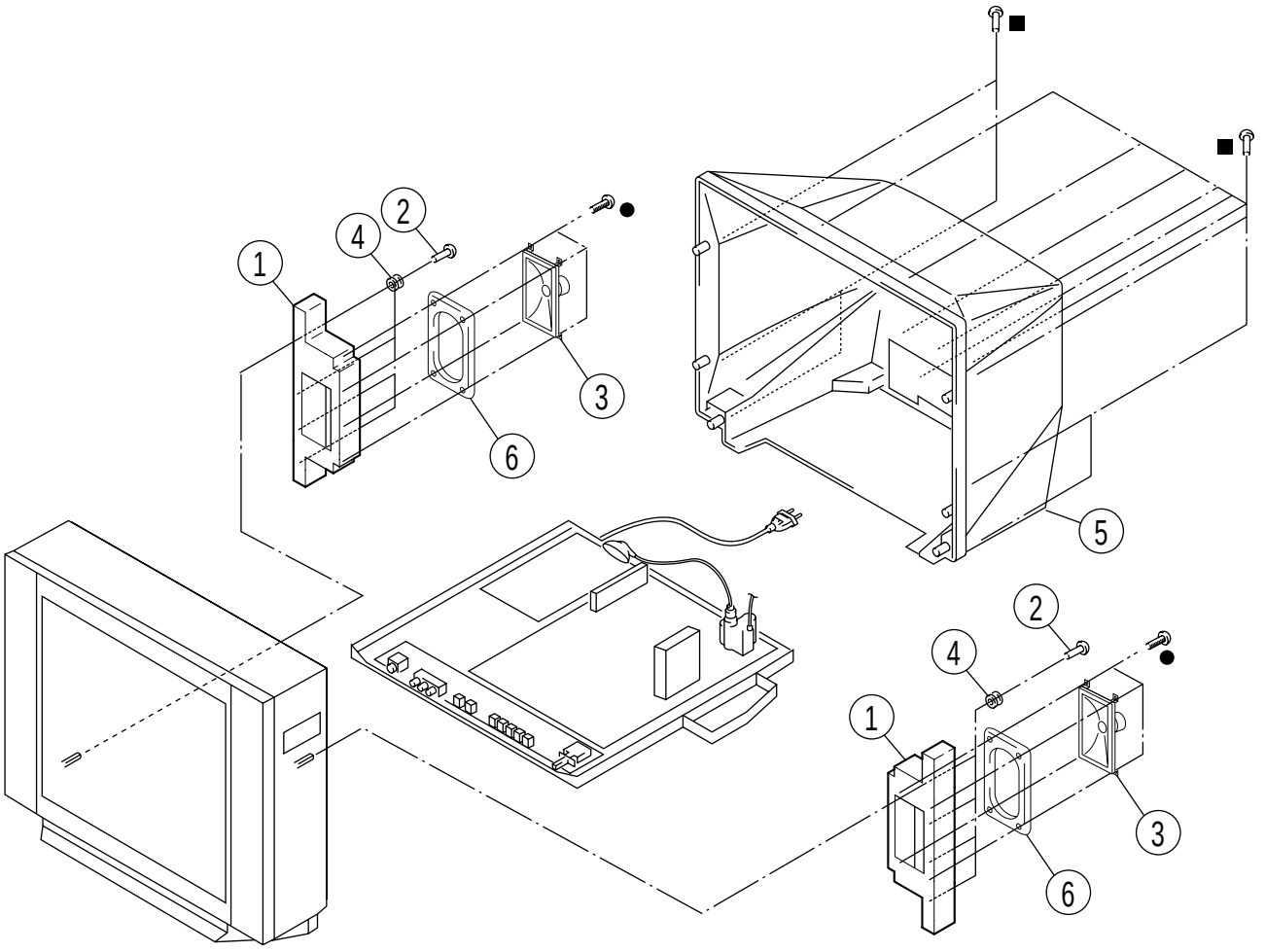
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. SPEAKER BRACKET

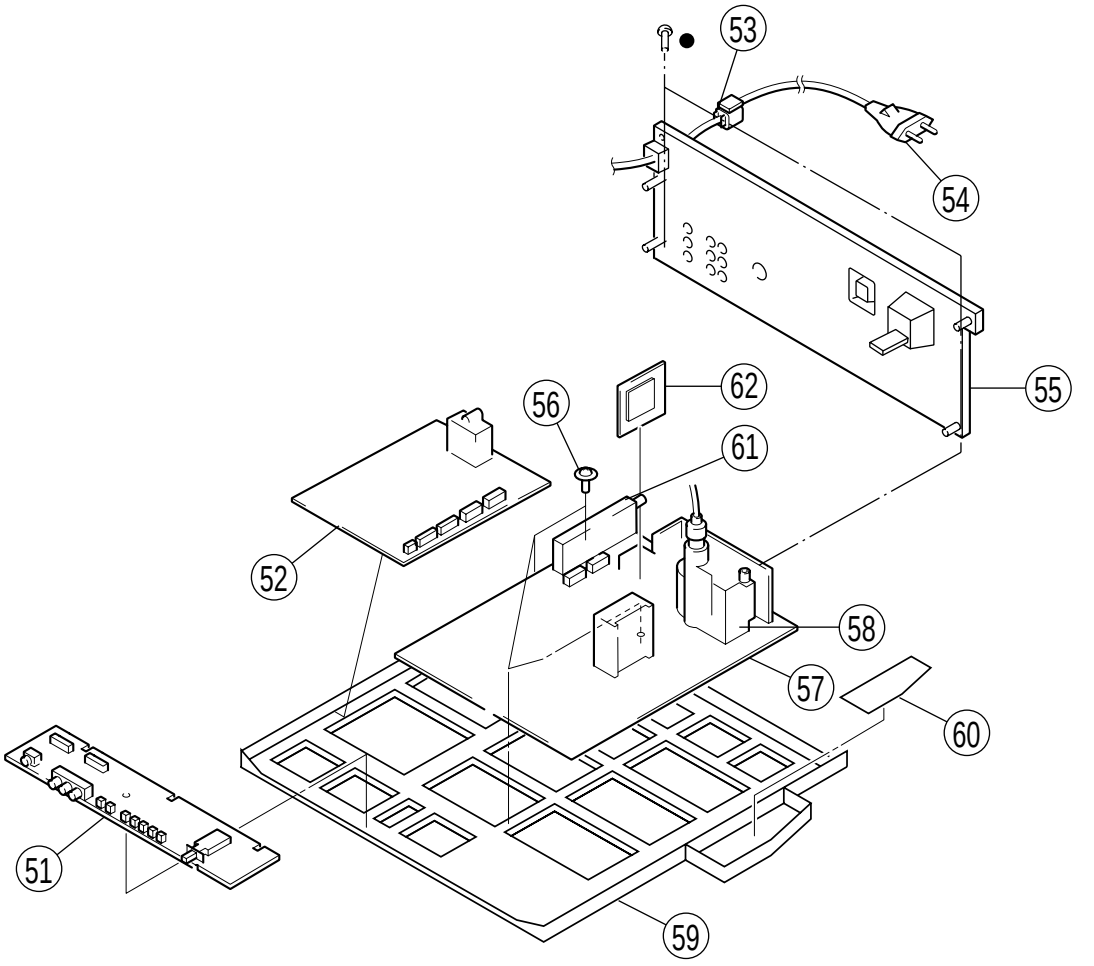
■: 7-685-663-71 SCREW +BVTP 4 × 16
●: 7-685-648-71 SCREW +BVTP 3 × 12



REF. NO.		PART NO.	DESCRIPTION	REMARK
1	*	4-071-045-02	BRACKET, SPEAKER	
2		4-054-981-01	SCREW, STEP TAPPING	
3		1-529-563-11	SPEAKER (15X6.5CM)	
4	*	4-379-189-11	CUSHION, SPEAKER	
5	⚠	4-065-506-02	COVER, REAR	
6	*	4-069-797-01	CUSHION, SPEAKER (S)	

6-2. CHASSIS

●: 7-685-648-71 SCREW BVTP 3 × 12

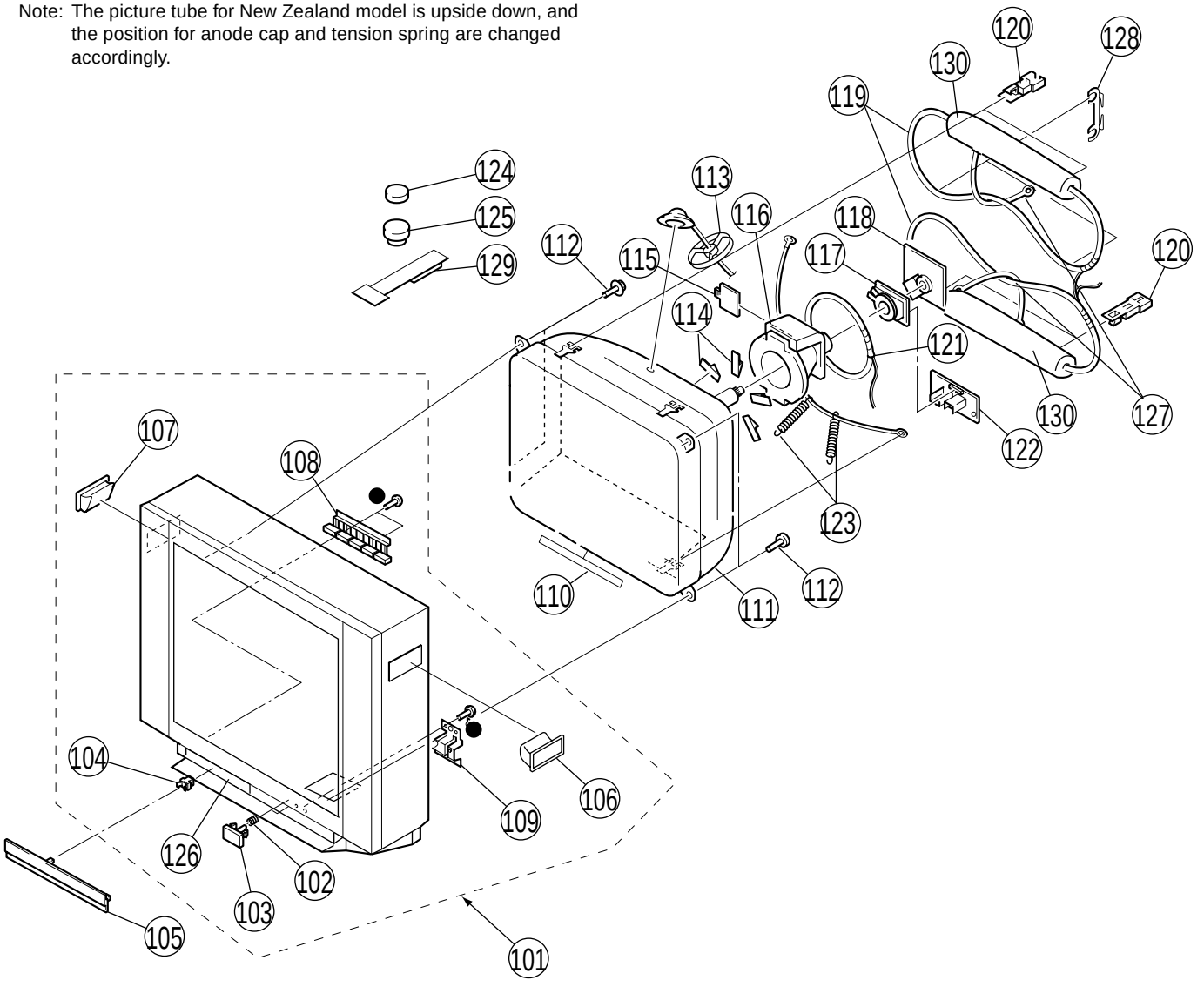


REF. NO.		PART NO.	DESCRIPTION	REMARK
51	*	A-1372-742-A	H2 BOARD MOUNTED	
52	*	A-1136-081-A	B6 BOARD COMPLETE	
53		4-022-115-00	HOLDER, AC CORD	
54	⚠	1-574-385-21	CORD, POWER (WITH CONNECTOR) 7.5A/250V	
55		4-066-684-72	BRACKET, TERMINAL	
56		4-046-797-01	SCREW (3X12), (+)BVTAP	
57	*	A-1299-250-A	A BOARD COMPLETE	
58	⚠	1-453-297-21	TRANSFORMER ASSY, FLYBACK (NX-4009//M3I4)	
59	*	4-066-681-12	BRACKET, MAIN	
60	*	A-1343-763-A	D3 BOARD MOUNTED	
61		8-598-449-10	TUNER, FSS BTF-LG433	
62		A-1347-155-A	V1 BOARD COMPLETE	

6-3. PICTURE TUBE

●: 7-685-648-71 SCREW BVTP 3 × 12

Note: The picture tube for New Zealand model is upside down, and the position for anode cap and tension spring are changed accordingly.



REF. NO.		PART NO.	DESCRIPTION	REMARK
101		X-4037-903-1	BEZNET ASSY	102-104, 106-109, 126
102		4-036-405-11	SPRING, COMPRESSION	
103		4-065-508-01	BUTTON, POWER	
104		4-047-464-01	CATCHER, PUSH	
105		4-071-047-11	DOOR, CONTROL	
106		4-070-957-01	HANDLE (R)	
107		4-070-956-01	HANDLE (L)	
108		4-065-509-01	BUTTON, CONTROL	
109	*	4-065-510-01	GUIDE, LIGHT	
110		4-072-569-11	SHEET, BLOTTING	
111	⚠	8-735-057-05	PICTURE TUBE (M68LNH070X)	
112		4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
113	*	3-704-372-11	HOLDER, HV CABLE	
114		4-046-600-11	SPACER, DY	
115		2-163-920-01	PLATE, TLH CORRECTION	
116		8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
117		8-453-011-11	NA299-M	
118	*	A-1332-011-A	C6 BOARD MOUNTED	
119	⚠	1-419-323-11	COIL, DEGAUSSING	
120	*	4-062-970-11	CLIP (29RSN), DGC	
121		1-452-896-11	COIL, NA ROTATION (RT200)	
122	*	A-1342-519-A	VM1 BOARD MOUNTED	
123		4-369-318-61	SPRING, TENSION	
124		1-452-032-00	MAGNET,DISC	
125		1-452-014-11	CIRCULAR DISC MAGNET B	
126		4-032-761-01	SHAFT (S), DOOR	
127		4-068-028-32	BAND, DGC	
128		4-064-883-03	HOLDER, DGC	
129		X-4387-214-3	PERMALOY ASSY, CORRECTION	
130		4-063-935-21	CUSHION (50 X 550)DGC	

SECTION 7
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : µF, PF : µµF

COILS
- MMH : mH, UH : µH

REF. NO.	PART NO.	DESCRIPTION		REMARK
*	A-1299-250-A	A BOARD COMPLETE		
		**********		
	4-382-854-11	SCREW (M3X10), P, SW (+)		
	4-382-854-21	SCREW (M3X14), P, SW (+)		
		<CAPACITOR>		
C004	1-163-001-11	CERAMIC CHIP	220PF 10.00% 50V	
C005	1-163-001-11	CERAMIC CHIP	220PF 10.00% 50V	
C006	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C007	1-104-664-11	ELECT	47UF 20.00% 16V	
C013	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	
C014	1-104-664-11	ELECT	47UF 20.00% 25V	
C015	1-163-009-11	CERAMIC CHIP	0.001UF 10.00% 50V	
C016	1-163-243-11	CERAMIC CHIP	47PF 5.00% 50V	
C017	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V	
C019	1-104-664-11	ELECT	47UF 20.00% 25V	
C022	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V	
C023	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V	
C024	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V	
C026	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C027	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C028	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	
C030	1-126-965-11	ELECT	22UF 20.00% 50V	
C031	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C032	1-107-823-11	CERAMIC CHIP	0.47UF 10.00% 16V	
C034	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C041	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C042	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C044	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C047	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C055	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C103	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C104	1-104-665-11	ELECT	100UF 20.00% 10V	
C107	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C108	1-104-664-11	ELECT	47UF 20.00% 16V	
C109	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C110	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C111	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C112	1-104-664-11	ELECT	47UF 20.00% 16V	
C113	1-104-664-11	ELECT	47UF 20.00% 25V	
C114	1-126-967-11	ELECT	47UF 20.00% 50V	
C202	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	
C203	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	
C204	1-136-161-00	MYLAR	0.047UF 5.00% 50V	
C205	1-164-182-11	CERAMIC CHIP	0.0033UF 10.00% 50V	
C206	1-164-182-11	CERAMIC CHIP	0.0033UF 10.00% 50V	
C207	1-136-161-00	MYLAR	0.047UF 5.00% 50V	
C208	1-126-965-11	ELECT	22UF 20.00% 50V	
C209	1-126-965-11	ELECT	22UF 20.00% 50V	
C210	1-126-933-11	ELECT	100UF 20.00% 16V	
C211	1-126-941-11	ELECT	470UF 20.00% 25V	
C212	1-126-933-11	ELECT	100UF 20.00% 16V	
C213	1-126-933-11	ELECT	100UF 20.00% 16V	
C214	1-126-942-61	ELECT	1000UF 20.00% 25V	
C215	1-126-942-61	ELECT	1000UF 20.00% 25V	
C216	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	
C217	1-126-964-11	ELECT	10UF 20.00% 50V	
C218	1-136-167-00	MYLAR	0.15UF 5.00% 50V	
C219	1-136-167-00	MYLAR	0.15UF 5.00% 50V	
C220	1-126-942-61	ELECT	1000UF 20.00% 25V	
C221	1-126-964-11	ELECT	10UF 20.00% 50V	
C223	1-126-965-11	ELECT	22UF 20.00% 50V	
C224	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V	
C225	1-109-982-11	CERAMIC CHIP	1UF 10.00% 10V	
C226	1-109-982-11	CERAMIC CHIP	1UF 10.00% 10V	
C264	1-164-505-11	CERAMIC CHIP	2.2UF 16V	
C265	1-164-505-11	CERAMIC CHIP	2.2UF 16V	
C301	1-126-935-11	ELECT	470UF 20.00% 16V	
C302	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C303	1-126-964-11	ELECT	10UF 20.00% 50V	
C304	1-126-967-11	ELECT	47UF 20.00% 50V	
C305	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C306	1-163-233-11	CERAMIC CHIP	18PF 5.00% 50V	
C307	1-163-233-11	CERAMIC CHIP	18PF 5.00% 50V	
C308	1-163-259-91	CERAMIC CHIP	220PF 5.00% 50V	
C309	1-126-957-11	ELECT	0.22UF 20.00% 50V	
C310	1-126-963-11	ELECT	4.7UF 20.00% 50V	
C311	1-126-964-11	ELECT	10UF 20.00% 50V	
C312	1-164-346-11	CERAMIC CHIP	1UF 16V	
C313	1-164-346-11	CERAMIC CHIP	1UF 16V	
C315	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C316	1-126-934-11	ELECT	220UF 20.00% 16V	
C317	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C318	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C319	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C320	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C322	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C323	1-126-965-11	ELECT	22UF 20.00% 50V	
C324	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	
C325	1-126-960-11	ELECT	1UF 20.00% 50V	
C327	1-126-965-11	ELECT	22UF 20.00% 50V	
C328	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C329	1-126-965-11	ELECT	22UF 20.00% 50V	

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Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C330	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C331	1-126-963-11	ELECT	4.7UF	20.00%	50V
C332	1-126-963-11	ELECT	4.7UF	20.00%	50V
C335	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C336	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C337	1-126-961-11	ELECT	2.2UF	20.00%	50V
C338	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C341	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V
C342	1-163-259-91	CERAMIC CHIP	220PF	5.00%	50V
C502	1-163-145-00	CERAMIC CHIP	0.0015UF	5.00%	50V
C503	1-126-964-11	ELECT	10UF	20.00%	50V
C506	1-107-638-11	ELECT	33UF	20.00%	160V
C507	1-161-830-00	CERAMIC	0.0047UF		500V
C510	1-102-112-00	CERAMIC	330PF	10.00%	50V
C512	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C513	1-163-263-11	CERAMIC CHIP	330PF	5.00%	50V
C514	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C517	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C518	1-104-665-11	ELECT	100UF	20.00%	10V
C519	1-102-212-00	CERAMIC	820PF	10.00%	500V
C521	1-126-934-11	ELECT	220UF	20.00%	16V
C522	1-126-933-11	ELECT	100UF	20.00%	16V
C523	1-102-002-00	CERAMIC	680PF	10.00%	500V
C524	1-126-967-11	ELECT	47UF	20.00%	50V
C526	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C527	1-102-820-00	CERAMIC	330PF	5.00%	50V
C528	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C530	1-137-372-11	MYLAR	0.022UF	5.00%	50V
C531	1-107-903-11	ELECT	2.2UF	20.00%	50V
C532	1-126-941-11	ELECT	470UF	20.00%	25V
C533	1-126-941-11	ELECT	470UF	20.00%	25V
C536	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C537	1-126-969-11	ELECT	220UF	20.00%	50V
C538	1-127-717-11	CAP, METALIZED PP FILM 19000PF			
C539	1-129-723-00	FILM	0.056UF	5.00%	630V
C540	1-136-171-00	MYLAR	0.33UF	5.00%	50V
C546	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C549	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C550	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C551	1-126-960-11	ELECT	1UF	20.00%	50V
C552	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C553	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C554	1-137-417-11	MYLAR	0.0047UF	10.00%	200V
C556	1-126-941-11	ELECT	470UF	20.00%	25V
C557	1-126-941-11	ELECT	470UF	20.00%	25V
C558	1-123-024-21	ELECT	33UF		160V
C560	1-102-228-00	CERAMIC	470PF	10.00%	500V
C561	1-129-898-00	FILM	0.0022UF	5.00%	630V
C562	1-102-228-00	CERAMIC	470PF	10.00%	500V
C564	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C565	1-107-655-11	ELECT	47UF	20.00%	250V
C566	1-102-244-00	CERAMIC	220PF	10.00%	500V
C567	1-115-520-11	FILM	0.68UF	5.00%	250V
C568	1-102-228-00	CERAMIC	470PF	10.00%	500V
C570	1-115-522-11	FILM	1UF	5.00%	250V
C572	1-117-661-21	FILM	0.15UF	5.00%	250V
C573	1-106-387-00	MYLAR	0.068UF	10.00%	200V
C574	1-104-709-11	ELECT	4.7UF		160V

REF. NO.		PART NO.	DESCRIPTION			REMARK
C576		1-130-495-00	MYLAR	0.1UF	5.00%	50V
C577		1-106-395-00	MYLAR	0.15UF	10.00%	200V
C582		1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C584		1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C586		1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C600	⚠	1-104-705-11	MYLAR	0.1UF	20.00%	250V
C602	⚠	1-104-705-11	MYLAR	0.1UF	20.00%	250V
C603		1-104-664-11	ELECT	47UF	20.00%	25V
C604		1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C605	⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C606	⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C607		1-161-830-00	CERAMIC	0.0047UF	99%	500V
C608		1-161-830-00	CERAMIC	0.0047UF	99%	500V
C609		1-126-968-11	ELECT	100UF	20.00%	50V
C610		1-126-964-11	ELECT	10UF	20.00%	50V
C611		1-161-830-00	CERAMIC	0.0047UF	99%	500V
C612		1-161-830-00	CERAMIC	0.0047UF	99%	500V
C613		1-125-906-11	ELECT	560UF	20.00%	450V
C614		1-126-964-11	ELECT	10UF	20.00%	50V
C615	⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C616		1-130-202-00	FILM	0.022UF	5.00%	400V
C617		1-107-792-11	CERAMIC	100PF	5.00%	1KV
C618		1-125-893-11	FILM	680PF	3.00%	1.5KV
C619	⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C620		1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C621		1-102-114-00	CERAMIC	470PF	10.00%	50V
C622		1-102-119-00	CERAMIC	0.0015UF	10.00%	50V
C623		1-104-665-11	ELECT	100UF	20.00%	25V
C624		1-125-772-91	CERAMIC	1500PF	10.00%	2KV
C625		1-102-002-00	CERAMIC	680PF	10.00%	500V
C626		1-102-002-00	CERAMIC	680PF	10.00%	500V
C628		1-126-942-61	ELECT	1000UF	20.00%	25V
C629		1-126-964-11	ELECT	10UF	20.00%	50V
C630		1-125-494-11	ELECT(BLOCK)	560UF	20.00%	160V
C632		1-128-339-11	ELECT	2200UF	20.00%	16V
C633		1-104-999-11	MYLAR	0.1UF	10.00%	200V
C634		1-126-933-11	ELECT	100UF	20.00%	16V
C635		1-104-665-11	ELECT	100UF	20.00%	10V
C636		1-104-760-11	CERAMIC CHIP	0.047UF	10.00%	50V
C641		1-102-002-00	CERAMIC	680PF	10.00%	500V
C642		1-126-943-11	ELECT	2200UF	20.00%	25V
C643		1-104-665-11	ELECT	100UF	20.00%	10V
C644		1-104-331-11	CERAMIC	0.0022UF	10.00%	1KV
C645		1-137-605-11	MYLAR	0.01UF	10.00%	250V
C646		1-107-679-91	ELECT	10UF	20.00%	450V
C647		1-163-275-11	CERAMIC CHIP	0.001UF	5.00%	50V
C649		1-126-940-11	ELECT	330UF	20.00%	25V
C650		1-163-275-11	CERAMIC CHIP	0.001UF	5.00%	50V
C651		1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C652		1-126-965-11	ELECT	22UF	20.00%	50V
C653		1-104-664-11	ELECT	47UF	20.00%	25V
C655	⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C657		1-101-821-00	CERAMIC	0.0022UF		500V
C901		1-136-153-00	MYLAR	0.01UF	5.00%	50V
C902		1-136-153-00	MYLAR	0.01UF	5.00%	50V
C912		1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C913		1-104-665-11	ELECT	100UF	20.00%	10V

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REF. NO.		PART NO.	DESCRIPTION	REMARK
			<CONNECTOR>	
CN101	*	1-764-333-11	PLUG, CONNECTOR 10P	
CN102	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN104		1-695-915-11	TAB (CONTACT)	
CN106	*	1-564-506-11	PLUG, CONNECTOR 3P	
CN202	*	1-508-847-00	PIN, CONNECTOR 4P	
CN301	*	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P	
CN303	*	1-564-506-11	PLUG, CONNECTOR 3P	
CN305	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN307	*	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P	
CN501	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN502	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN503	*	1-564-510-11	PLUG, CONNECTOR 7P	
CN504		1-695-915-11	TAB (CONTACT)	
CN505		1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN601	*	1-580-843-11	PIN, CONNECTOR (POWER)	
CN602	*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN603	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN604	*	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P	
CN901	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN904	*	1-564-512-11	PLUG, CONNECTOR 9P	
			<COMPOSITION CIRCUIT BLOCK>	
CP301		1-418-807-11	FILTER BLOCK, COMB	
			<DIODE>	
D001		8-719-988-61	DIODE 1SS355TE-17	
D005		8-719-988-61	DIODE 1SS355TE-17	
D006		8-719-988-61	DIODE 1SS355TE-17	
D203		8-719-914-42	DIODE DA204K-T-146	
D300		1-216-295-91	SHORT 0	
D301		8-719-988-61	DIODE 1SS355TE-17	
D306		8-719-988-61	DIODE 1SS355TE-17	
D307		8-719-988-61	DIODE 1SS355TE-17	
D308		8-719-988-61	DIODE 1SS355TE-17	
D309		8-719-069-54	DIODE UDZS-TE17-5.1B	
D311		8-719-988-61	DIODE 1SS355TE-17	
D312		8-719-988-61	DIODE 1SS355TE-17	
D313		8-719-988-61	DIODE 1SS355TE-17	
D314		8-719-988-61	DIODE 1SS355TE-17	
D315		8-719-988-61	DIODE 1SS355TE-17	
D316		8-719-037-06	DIODE RD7.5SB1-T1	
D320		8-719-069-60	DIODE UDZS-TE17-9.1B	
D321		8-719-069-60	DIODE UDZS-TE17-9.1B	
D504		8-719-302-43	DIODE RGP10GPKG23	
D505		8-719-988-61	DIODE 1SS355TE-17	
D506		8-719-911-19	DIODE 1SS119-25TD	
D507		8-719-988-61	DIODE 1SS355TE-17	
D508		8-719-988-61	DIODE 1SS355TE-17	
D509		1-216-073-00	RES-CHIP 10K 5% 1/10W	
D510		8-719-988-61	DIODE 1SS355TE-17	
D511		8-719-988-61	DIODE 1SS355TE-17	
D512		8-719-988-61	DIODE 1SS355TE-17	
D513		8-719-908-03	DIODE GP08DPKG23	
D517		8-719-312-71	DIODE RS3FS	
D518		8-719-074-35	DIODE RU4AM-T4	
D519		8-719-312-71	DIODE RS3FS	
D521		8-719-302-43	DIODE RGP10GPKG23	
D522		8-719-028-45	DIODE D2L20U-F	
D523		8-719-302-43	DIODE RGP10GPKG23	
D527		8-719-908-03	DIODE GP08DPKG23	
D528		8-719-908-03	DIODE GP08DPKG23	
D531		8-719-988-61	DIODE 1SS355TE-17	
D532		8-719-988-61	DIODE 1SS355TE-17	
D534		8-719-988-61	DIODE 1SS355TE-17	
D600		8-719-911-19	DIODE 1SS119-25TD	
D602		8-719-911-19	DIODE 1SS119-25TD	
D603		8-719-150-92	DIODE RD33ES-T1B2	
D604		8-719-028-72	DIODE RGP02-17PKG23	
D605		8-719-510-22	DIODE D3SB60	
D606		8-719-108-18	DIODE TF541M	
D607		8-719-073-01	DIODE MA111-TX	
D608		8-719-110-53	DIODE RD20ES-T1B2	
D609		8-719-311-31	DIODE BYV26E/23	
D610		8-719-043-76	DIODE AK04V0	
D611		8-719-046-74	DIODE AU-01Z-WS	
D613		8-719-046-74	DIODE AU-01Z-WS	
D614		8-719-046-74	DIODE AU-01Z-WS	
D615		8-719-074-35	DIODE RU4AM-T4	
D616		8-719-067-18	DIODE RN4Z	
D617		8-719-073-84	DIODE 31DQ06-FC5	
D620		8-719-110-72	DIODE RD30ES-T1B1	
D623		8-719-978-65	DIODE UDZ-TE-17-15B	
D624		8-719-073-01	DIODE MA111-(K8).S0	
D625		8-719-977-28	DIODE UDZS-TE17-10B	
D627		8-719-073-84	DIODE 31DQ06-FC5	
D628		8-719-911-19	DIODE 1SS119-25TD	
D631		8-719-068-00	DIODE ERC04-06SE	
D632		8-719-068-00	DIODE ERC04-06SE	
D633		8-719-948-45	DIODE ERA22-08TP3	
D634		8-719-073-01	DIODE MA111-(K8).S0	
D635		8-719-073-01	DIODE MA111-(K8).S0	
D636		8-719-510-02	DIODE D1NS4-TA2	
D637		8-719-109-96	DIODE RD6.8ES-T1B1	
D638		8-719-510-48	DIODE D1N20R-TR	
			<CONNECTOR>	
DY1	*	1-580-798-11	CONNECTOR PIN (DY) 6P	
			<FERRITE BEAD>	
FB501		1-410-397-21	FERRITE 1.1UH	
FB502		1-410-397-21	FERRITE 1.1UH	
FB600		1-410-397-21	FERRITE 1.1UH	
FB601		1-410-397-21	FERRITE 1.1UH	
FB602		1-410-397-21	FERRITE 1.1UH	
FB603		1-410-397-21	FERRITE 1.1UH	
FB604		1-412-911-31	FERRITE 0UH	
FB606		1-412-911-31	FERRITE 0UH	
FB608		1-412-911-31	FERRITE 0UH	
FB611		1-410-397-21	FERRITE 1.1UH	

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Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION		REMARK
FB612	1-410-397-21	FERRITE	1.1UH	
FB613	1-410-397-21	FERRITE	1.1UH	
FB615	1-412-911-31	FERRITE	0UH	
		<IC>		
IC001	8-752-910-12	IC CXP86449-627S		
IC002	8-759-371-21	IC MM1319AFBE		
IC003	8-759-672-78	IC M24C08-BN6		
IC201	8-759-336-30	IC TA8223K		
IC301	8-752-090-41	IC CXA2139S		
IC502	8-759-700-07	IC NJM2903M-TE2		
IC503	8-759-980-58	IC TDA8172		
IC601	8-749-014-48	IC STR-F6656		
IC602	8-749-920-61	IC SE-135N		
IC603	8-759-701-59	IC NJM78M09FA		
IC604	8-759-231-53	IC TA7805S		
		<CHIP CONDUCTOR>		
JR001	1-216-295-91	SHORT	0	
JR002	1-216-295-91	SHORT	0	
JR004	1-216-295-91	SHORT	0	
JR005	1-216-295-91	SHORT	0	
JR006	1-216-295-91	SHORT	0	
JR007	1-216-295-91	SHORT	0	
JR008	1-216-295-91	SHORT	0	
JR010	1-216-295-91	SHORT	0	
JR012	1-216-295-91	SHORT	0	
JR014	1-216-295-91	SHORT	0	
JR015	1-216-295-91	SHORT	0	
JR016	1-216-295-91	SHORT	0	
JR019	1-216-295-91	SHORT	0	
JR102	1-216-295-91	SHORT	0	
JR109	1-216-295-91	SHORT	0	
JR202	1-216-295-91	SHORT	0	
JR204	1-216-295-91	SHORT	0	
JR309	1-216-295-91	SHORT	0	
JR500	1-216-295-91	SHORT	0	
JR501	1-216-295-91	SHORT	0	
JR502	1-216-295-91	SHORT	0	
JR503	1-216-295-91	SHORT	0	
JR600	1-216-295-91	SHORT	0	
		<COIL>		
L002	1-414-856-11	INDUCTOR	10UH	
L003	1-414-180-11	INDUCTOR	3.3UH	
L005	1-414-233-22	INDUCTOR CHIP	0UH	
L101	1-414-856-11	INDUCTOR	10UH	
L102	1-414-856-11	INDUCTOR	10UH	
L103	1-414-856-11	INDUCTOR	10UH	
L104	1-414-856-11	INDUCTOR	10UH	
L105	1-414-856-11	INDUCTOR	10UH	
L301	1-414-189-31	INDUCTOR	100UH	
L302	1-414-185-41	INDUCTOR	22UH	
L501	1-412-525-31	INDUCTOR	10UH	
L502	1-422-613-11	COIL, AIR CORE		
L503	1-412-525-31	INDUCTOR	10UH	
L504	1-412-525-31	INDUCTOR	10UH	
L507	1-459-111-00	INDUCTOR	10MH	
L511	1-406-977-71	INDUCTOR	0UH	
L513	1-412-551-31	INDUCTOR	1.5MH	
L515	1-459-104-00	COIL, WITH CORE		
L518	1-414-187-11	INDUCTOR	47UH	
L601	1-412-527-11	INDUCTOR	15UH	
L901	1-408-603-31	INDUCTOR	10UH	
L902	1-408-603-31	INDUCTOR	10UH	
L905	1-414-856-11	INDUCTOR	10UH	
		<PHOTO COUPLER>		
PH600 ⚠	8-749-924-35	PHOTO COUPLER ON3171-R		
		<IC LINK>		
PS200	1-532-675-21	LINK, IC 1.5A/150V		
		<TRANSISTOR>		
Q002	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q003	8-729-424-08	TRANSISTOR UN2111		
Q004	8-729-421-22	TRANSISTOR UN2211		
Q101	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q201	8-729-424-67	TRANSISTOR UN2216-TX		
Q202	8-729-424-67	TRANSISTOR UN2216		
Q205	8-729-421-19	TRANSISTOR UN2213		
Q206	8-729-421-19	TRANSISTOR UN2213		
Q207	8-729-421-19	TRANSISTOR UN2213		
Q301	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q303	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q304	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q305	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q306	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q307	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q308	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q312	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q313	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q315	8-729-421-19	TRANSISTOR UN2213		
Q501	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q502	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q503	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q505	8-729-931-45	TRANSISTOR IRF614		
Q506	8-729-119-80	TRANSISTOR 2SC2688-LK		
Q507	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L		
Q509	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q511	8-729-048-07	TRANSISTOR 2SD2578-CA		
Q600	8-729-119-78	TRANSISTOR 2SC2785TP-HFE		
Q601	8-729-023-22	TRANSISTOR 2SD2114KT146		
Q602	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		
Q603	8-729-424-08	TRANSISTOR UN2111		
Q604	8-729-200-17	TRANSISTOR 2SA1091R-TPE2		
Q605	8-729-044-30	TRANSISTOR 2SK2845-LB102		
Q606	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		

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REF. NO.	PART NO.	DESCRIPTION			REMARK
Q607	8-729-922-37	TRANSISTOR 2SD2144S-TP-UVW			
Q608	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
		<RESISTOR>			
R001	1-414-233-22	INDUCTOR CHIP	0UH		
R002	1-216-025-91	RES-CHIP	100	5%	1/10W
R003	1-216-073-00	RES-CHIP	10K	5%	1/10W
R004	1-216-025-91	RES-CHIP	100	5%	1/10W
R005	1-216-025-91	RES-CHIP	100	5%	1/10W
R008	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R010	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R011	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R012	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R013	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R014	1-216-025-91	RES-CHIP	100	5%	1/10W
R015	1-216-025-91	RES-CHIP	100	5%	1/10W
R017	1-216-049-91	RES-CHIP	1K	5%	1/10W
R018	1-216-033-00	RES-CHIP	220	5%	1/10W
R019	1-216-073-00	RES-CHIP	10K	5%	1/10W
R021	1-216-073-00	RES-CHIP	10K	5%	1/10W
R022	1-216-033-00	RES-CHIP	220	5%	1/10W
R024	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R025	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R026	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R027	1-216-073-00	RES-CHIP	10K	5%	1/10W
R029	1-216-049-91	RES-CHIP	1K	5%	1/10W
R031	1-216-049-91	RES-CHIP	1K	5%	1/10W
R034	1-216-049-91	RES-CHIP	1K	5%	1/10W
R035	1-216-025-91	RES-CHIP	100	5%	1/10W
R036	1-216-025-91	RES-CHIP	100	5%	1/10W
R037	1-216-025-91	RES-CHIP	100	5%	1/10W
R040	1-216-025-91	RES-CHIP	100	5%	1/10W
R041	1-216-025-91	RES-CHIP	100	5%	1/10W
R042	1-216-295-91	SHORT	0		
R043	1-216-049-91	RES-CHIP	1K	5%	1/10W
R044	1-216-025-91	RES-CHIP	100	5%	1/10W
R045	1-414-233-22	INDUCTOR CHIP	0UH		
R046	1-216-049-91	RES-CHIP	1K	5%	1/10W
R047	1-414-233-22	INDUCTOR CHIP	0UH		
R048	1-216-073-00	RES-CHIP	10K	5%	1/10W
R050	1-216-073-00	RES-CHIP	10K	5%	1/10W
R053	1-216-049-91	RES-CHIP	1K	5%	1/10W
R055	1-216-073-00	RES-CHIP	10K	5%	1/10W
R056	1-216-073-00	RES-CHIP	10K	5%	1/10W
R061	1-216-033-00	RES-CHIP	220	5%	1/10W
R062	1-216-041-00	RES-CHIP	470	5%	1/10W
R063	1-216-041-00	RES-CHIP	470	5%	1/10W
R064	1-216-041-00	RES-CHIP	470	5%	1/10W
R065	1-216-041-00	RES-CHIP	470	5%	1/10W
R066	1-216-049-91	RES-CHIP	1K	5%	1/10W
R067	1-216-049-91	RES-CHIP	1K	5%	1/10W
R105	1-216-295-91	SHORT	0		
R109	1-216-041-00	RES-CHIP	470	5%	1/10W
R111	1-216-025-91	RES-CHIP	100	5%	1/10W
R112	1-216-025-91	RES-CHIP	100	5%	1/10W
R113	1-216-047-91	RES-CHIP	820	5%	1/10W
R202	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R203	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R204	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R205	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R206	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R207	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R208	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R209	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R210	1-216-031-00	RES-CHIP	180	5%	1/10W
R212	1-216-031-00	RES-CHIP	180	5%	1/10W
R225	1-216-033-00	RES-CHIP	220	5%	1/10W
R226	1-216-033-00	RES-CHIP	220	5%	1/10W
R227	1-216-033-00	RES-CHIP	220	5%	1/10W
R228	1-249-389-11	CARBON	4.7	5%	1/4W
R229	1-216-073-00	RES-CHIP	10K	5%	1/10W
R230	1-216-073-00	RES-CHIP	10K	5%	1/10W
R231	1-216-295-91	SHORT	0		
R234	1-249-389-11	CARBON	4.7	5%	1/4W
R237	1-216-308-00	RES-CHIP	4.7	5%	1/10W
R301	1-216-073-00	RES-CHIP	10K	5%	1/10W
R302	1-216-295-91	SHORT	0		
R303	1-216-049-91	RES-CHIP	1K	5%	1/10W
R304	1-216-073-00	RES-CHIP	10K	5%	1/10W
R305	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R306	1-216-085-00	RES-CHIP	33K	5%	1/10W
R308	1-216-025-91	RES-CHIP	100	5%	1/10W
R309	1-216-025-91	RES-CHIP	100	5%	1/10W
R310	1-216-025-91	RES-CHIP	100	5%	1/10W
R311	1-216-017-91	RES-CHIP	47	5%	1/10W
R312	1-216-041-00	RES-CHIP	470	5%	1/10W
R313	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R314	1-216-043-91	RES-CHIP	560	5%	1/10W
R315	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R316	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R317	1-216-077-91	RES-CHIP	15K	5%	1/10W
R318	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R319	1-216-025-91	RES-CHIP	100	5%	1/10W
R320	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R321	1-216-073-00	RES-CHIP	10K	5%	1/10W
R322	1-216-033-00	RES-CHIP	220	5%	1/10W
R326	1-216-295-91	SHORT	0		
R331	1-216-295-91	SHORT	0		
R332	1-216-033-00	RES-CHIP	220	5%	1/10W
R333	1-216-083-00	RES-CHIP	27K	5%	1/10W
R334	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R335	1-216-045-00	RES-CHIP	680	5%	1/10W
R338	1-216-037-00	RES-CHIP	330	5%	1/10W
R340	1-216-025-91	RES-CHIP	100	5%	1/10W
R345	1-216-081-00	RES-CHIP	22K	5%	1/10W
R346	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R347	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R349	1-216-073-00	RES-CHIP	10K	5%	1/10W
R350	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R351	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R354	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R357	1-216-079-00	RES-CHIP	18K	5%	1/10W
R358	1-216-049-91	RES-CHIP	1K	5%	1/10W
R359	1-216-033-00	RES-CHIP	220	5%	1/10W
R360	1-216-033-00	RES-CHIP	220	5%	1/10W
R361	1-216-073-00	RES-CHIP	10K	5%	1/10W
R362	1-216-075-00	RES-CHIP	12K	5%	1/10W
R363	1-216-079-00	RES-CHIP	18K	5%	1/10W
R364	1-216-295-91	SHORT	0		
R365	1-216-033-00	RES-CHIP	220	5%	1/10W
R366	1-216-073-00	RES-CHIP	10K	5%	1/10W
R367	1-216-073-00	RES-CHIP	10K	5%	1/10W
R368	1-216-073-00	RES-CHIP	10K	5%	1/10W
R370	1-216-033-00	RES-CHIP	220	5%	1/10W
R375	1-216-025-91	RES-CHIP	100	5%	1/10W
R376	1-216-081-00	RES-CHIP	22K	5%	1/10W
R377	1-216-121-91	RES-CHIP	1M	5%	1/10W
R378	1-216-031-00	RES-CHIP	180	5%	1/10W
R500	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-216-049-91	RES-CHIP	1K	5%	1/10W
R505	1-216-699-91	METAL CHIP	100K	0.5%	1/10W
R506	1-216-081-00	RES-CHIP	22K	5%	1/10W
R507	1-249-389-11	CARBON	4.7	5%	1/4W
R508	1-216-471-11	METAL OXIDE	27	5%	3W
R509	1-216-473-11	METAL OXIDE	56	5%	3W
R510	1-216-449-11	METAL OXIDE	56	5%	2W
R511	1-215-908-00	METAL OXIDE	33	5%	3W
R515	1-215-911-11	METAL OXIDE	100	5%	3W
R517	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R518	1-247-807-31	CARBON	100	5%	1/4W
R519	1-215-913-11	METAL OXIDE	220	5%	3W
R520	1-215-445-00	METAL	10K	1%	1/4W
R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R523	1-249-411-11	CARBON	330	5%	1/4W
R525	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R526	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R527	1-216-001-00	RES-CHIP	10	5%	1/10W
R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R531	1-247-843-11	CARBON	3.3K	5%	1/4W
R533	1-249-417-11	CARBON	1K	5%	1/4W
R534	1-216-364-11	METAL OXIDE	0.39	5%	2W
R535	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R536	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R537	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R539	1-216-049-91	RES-CHIP	1K	5%	1/10W
R540	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R541	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R542	1-216-073-00	RES-CHIP	10K	5%	1/10W
R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W
R544	1-215-917-11	METAL OXIDE	1K	5%	3W
R545	1-216-077-91	RES-CHIP	15K	5%	1/10W
R546	1-216-077-91	RES-CHIP	15K	5%	1/10W
R547	1-216-085-00	RES-CHIP	33K	5%	1/10W
R548	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R549	1-215-452-00	METAL	20K	1%	1/4W
R550	1-216-097-91	RES-CHIP	100K	5%	1/10W
R551	1-249-441-11	CARBON	100K	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R552	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R553	1-215-453-00	METAL	22K	1%	1/4W
R554	1-215-453-00	METAL	22K	1%	1/4W
R556	1-215-437-00	METAL	4.7K	1%	1/4W
R558	1-247-843-11	CARBON	3.3K	5%	1/4W
R559	1-249-429-11	CARBON	10K	5%	1/4W
R560	1-216-073-00	RES-CHIP	10K	5%	1/10W
R561	1-216-049-91	RES-CHIP	1K	5%	1/10W
R562	1-249-401-11	CARBON	47	5%	1/4W
R564	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R565	1-216-073-00	RES-CHIP	10K	5%	1/10W
R567	1-216-105-91	RES-CHIP	220K	5%	1/10W
R568	1-249-383-11	CARBON	1.5	5%	1/4W
R570	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R571	1-215-443-00	METAL	8.2K	1%	1/4W
R573	1-216-083-00	RES-CHIP	27K	5%	1/10W
R575	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R577	1-215-913-11	METAL OXIDE	220	5%	3W
R578	1-216-369-00	METAL OXIDE	1	5%	2W
R579	1-216-295-91	SHORT	0		
R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R581	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R582	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R584	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R587	1-216-295-91	SHORT	0		
R588	1-215-888-00	METAL OXIDE	220	5%	2W
R589	1-215-888-00	METAL OXIDE	220	5%	2W
R590	1-215-465-00	METAL	68K	1%	1/4W
R591	1-260-288-11	CARBON	0.47	5%	1/2W
R592	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R593	1-260-288-11	CARBON	0.47	5%	1/2W
R594	1-260-288-11	CARBON	0.47	5%	1/2W
R595	1-216-073-00	RES-CHIP	10K	5%	1/10W
R596	1-215-916-00	METAL OXIDE	680	5%	3W
R597	1-247-750-11	CARBON	680	5%	1/2W
R598	1-249-438-11	CARBON	56K	5%	1/4W
R599	1-249-389-11	CARBON	4.7	5%	1/4W
R600	1-249-438-11	CARBON	56K	5%	1/4W
R601	1-249-420-11	CARBON	1.8K	5%	1/4W
R602	1-249-389-11	CARBON	4.7	5%	1/4W
R603	1-215-485-00	METAL	470K	1%	1/4W
R604	1-216-097-91	RES-CHIP	100K	5%	1/10W
R607	1-249-425-11	CARBON	4.7K	5%	1/4W
R608	1-240-205-91	CARBON	22M	5%	1/2W
R609	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R610	1-216-073-00	RES-CHIP	10K	5%	1/10W
R611	1-216-089-91	RES-CHIP	47K	5%	1/10W
R612	1-216-045-00	RES-CHIP	680	5%	1/10W
R614	1-216-041-00	RES-CHIP	470	5%	1/10W
R615	1-216-369-00	METAL OXIDE	1	5%	2W
R616	1-260-302-51	CARBON	6.8	5%	1/2W
R617	1-247-791-91	CARBON	22	5%	1/4W
R618	1-162-116-00	CERAMIC	680PF	10.00%	2KV
R619	1-260-128-11	CARBON	270K	5%	1/2W
R620	1-129-720-00	FILM	0.033UF	5.00%	630V
R621	1-215-864-00	METAL OXIDE	150	5%	1W
R623	1-216-095-00	RES-CHIP	82K	5%	1/10W
R624	1-216-089-91	RES-CHIP	47K	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.		PART NO.	DESCRIPTION			REMARK
R626		1-216-049-91	RES-CHIP	1K	5%	1/10W
R627		1-240-251-11	CMT-MELF	6.8	5%	10W
R629		1-247-747-11	CARBON	470	5%	1/2W
R630		1-249-429-11	CARBON	10K	5%	1/4W
R631		1-216-089-91	RES-CHIP	47K	5%	1/10W
R632		1-220-886-11	FUSIBLE	0.1	10%	1W
R634	⚠	1-218-265-11	METAL	8.2M	5%	1W
R635		1-216-492-21	METAL OXIDE	82K	5%	3W
R636		1-215-924-00	METAL OXIDE	15K	5%	3W
R637		1-216-492-21	METAL OXIDE	82K	5%	3W
R639		1-216-361-21	METAL OXIDE	0.22	5%	2W
R640		1-249-415-11	CARBON	680	5%	1/4W
R641		1-216-361-21	METAL OXIDE	0.22	5%	2W
R642		1-249-419-11	CARBON	1.5K	5%	1/4W
R643		1-247-843-11	CARBON	3.3K	5%	1/4W
R644		1-249-419-11	CARBON	1.5K	5%	1/4W
R646		1-215-924-00	METAL OXIDE	15K	5%	3W
R647		1-249-387-11	CARBON	3.3	5%	1/4W
R648		1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R649		1-249-417-11	CARBON	1K	5%	1/4W
R650		1-215-882-00	METAL OXIDE	22	5%	2W
R652		1-215-900-11	METAL OXIDE	22K	5%	2W
R653		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R656		1-249-417-11	CARBON	1K	5%	1/4W
R657		1-260-127-11	CARBON	220K	5%	1/2W
R659		1-216-049-91	RES-CHIP	1K	5%	1/10W
R660		1-216-073-00	RES-CHIP	10K	5%	1/10W
R661		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R682		1-249-377-11	CARBON	0.47	5%	1/4W
R901		1-249-411-11	CARBON	330	5%	1/4W
R902		1-249-411-11	CARBON	330	5%	1/4W
R909		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R910		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
			<RELAY>			
RY600	⚠	1-755-214-11	RELAY, AC POWER			
RY601	⚠	1-755-214-11	RELAY, AC POWER			
			<SWITCH>			
S501		1-572-707-11	SWITCH, LEVER			
S502		1-572-707-11	SWITCH, LEVER			
			<TRANSFORMER>			
T501		1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T503	⚠	1-453-297-21	TRANSFORMER ASSY, FLYBACK (NX4009//M3I4)			
T504		1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR			
T505		1-426-981-11	TRANSFORMER, FERRITE (PMT)			
T601	⚠	1-424-505-11	TRANSFORMER, LINE FILTER			
T603	⚠	1-435-147-11	TRANSFORMER, CONVERTER (SRT)			
T604	⚠	1-431-852-11	TRANSFORMER, CONVERTER (SRT)			

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<THERMISTOR>	
THP600	1-803-540-11	THERMISTOR	
		<TUNER>	
TU101	8-598-449-10	TUNER, FSS BTF-LG433	
		<CRYSTAL>	
X001	1-579-125-11	VIBRATOR, CERAMIC	
X301	1-781-134-21	VIBRATOR, CRYSTAL	
X302	1-781-132-21	VIBRATOR, CRYSTAL	

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*	A-1136-081-A	B6 BOARD COMPLETE			
		**********			
	1-533-223-11	CLIP, FUSE			
*	4-374-846-01	COVER, CAPACITOR, CAP TYPE			
		<CAPACITOR>			
C8227	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C8228	1-163-024-00	CERAMIC CHIP	0.018UF	10.00%	50V
C8229	1-163-018-00	CERAMIC CHIP	0.0056UF	10.00%	50V
C8230	1-163-024-00	CERAMIC CHIP	0.018UF	10.00%	50V
C8231	1-163-018-00	CERAMIC CHIP	0.0056UF	10.00%	50V
C8232	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C8233	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8234	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8235	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8236	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8238	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8240	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8241	1-164-346-11	CERAMIC CHIP	1UF		16V
C8242	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8243	1-164-346-11	CERAMIC CHIP	1UF		16V
C8244	1-164-700-11	CERAMIC CHIP	0.68UF		16V
C8245	1-164-346-11	CERAMIC CHIP	1UF		16V
C8246	1-163-018-00	CERAMIC CHIP	0.0056UF	10.00%	50V
C8247	1-164-346-11	CERAMIC CHIP	1UF		16V
C8248	1-163-010-11	CERAMIC CHIP	0.0012UF	10.00%	50V
C8249	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8250	1-164-346-11	CERAMIC CHIP	1UF		16V
C8251	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C8252	1-164-346-11	CERAMIC CHIP	1UF		16V
C8253	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C8254	1-126-965-11	ELECT	22UF	20.00%	50V
C8255	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C8258	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8259	1-126-933-11	ELECT	100UF	20.00%	16V
C8260	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C8261	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C8263	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8301	1-126-933-11	ELECT	100UF	20.00%	16V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C8304	1-126-967-11	ELECT	47UF	20.00%	50V
C8305	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8333	1-126-964-11	ELECT	10UF	20.00%	50V
C8401	1-164-346-11	CERAMIC CHIP	1UF		16V
C8402	1-164-346-11	CERAMIC CHIP	1UF		16V
C8403	1-163-005-11	CERAMIC CHIP	470PF	10.00%	50V
C8404	1-163-005-11	CERAMIC CHIP	470PF	10.00%	50V
C8405	1-126-935-11	ELECT	470UF	20.00%	16V
C8406	1-164-346-11	CERAMIC CHIP	1UF		16V
C8407	1-164-346-11	CERAMIC CHIP	1UF		16V
C8408	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C8409	1-126-933-11	ELECT	100UF	20.00%	16V
C8410	1-164-346-11	CERAMIC CHIP	1UF		16V
C8411	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C8412	1-164-346-11	CERAMIC CHIP	1UF		16V
C8413	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C8414	1-126-963-11	ELECT	4.7UF	20.00%	50V
C8415	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C8416	1-164-346-11	CERAMIC CHIP	1UF		16V
C8417	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C8418	1-164-346-11	CERAMIC CHIP	1UF		16V
C8419	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C8571	1-163-263-11	CERAMIC CHIP	330PF	5.00%	50V
C8572	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C8574	1-216-295-91	SHORT	0		
C8575	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C8576	1-104-661-91	ELECT	330UF	20.00%	16V
C8577	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C8578	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C8579	1-126-967-11	ELECT	47UF	20.00%	50V
C8580	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C8581	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C8601 ⚠	1-104-708-11	MYLAR	0.47UF	20.00%	250V
C8602 ⚠	1-109-835-11	MYLAR	0.68UF	20.00%	250V
C8654	1-117-703-11	CERAMIC	0.0047UF	99%	250V
		<CONNECTOR>			
CN8401*	1-564-509-11	PLUG, CONNECTOR 6P			
CN8402*	1-764-333-11	PLUG, CONNECTOR 10P			
CN8403*	1-564-510-11	PLUG, CONNECTOR 7P			
CN8501*	1-564-506-11	PLUG, CONNECTOR 3P			
CN8601*	1-580-843-11	PIN, CONNECTOR (POWER)			
CN8602*	1-580-843-11	PIN, CONNECTOR (POWER)			
CN8603	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D8300	8-719-158-35	DIODE RD9.1SB-T1			
D8401	8-719-158-35	DIODE RD9.1SB-T1			
D8402	8-719-158-35	DIODE RD9.1SB-T1			
D8403	8-719-158-35	DIODE RD9.1SB-T1			
D8404	8-719-158-35	DIODE RD9.1SB-T1			
D8405	8-719-158-35	DIODE RD9.1SB-T1			
D8406	8-719-158-35	DIODE RD9.1SB-T1			
D8407	8-719-158-35	DIODE RD9.1SB-T1			
D8408	8-719-158-35	DIODE RD9.1SB-T1			
D8409	8-719-158-35	DIODE RD9.1SB-T1			
D8410	8-719-158-35	DIODE RD9.1SB-T1			
D8411	8-719-158-35	DIODE RD9.1SB-T1			
D8412	8-719-914-42	DIODE DA204K-T-146			
D8413	8-719-158-35	DIODE RD9.1SB-T1			
		<FUSE>			
F8601 ⚠	1-532-299-00	FUSE, TIME-LAG 5A/250V			
		<IC>			
IC8203	8-759-553-40	IC TDA7429S			
IC8204	8-759-100-96	IC NJM4558M-TE2			
IC8501	8-752-058-68	IC CXA1315M-T4			
		<JACK>			
J8402	1-778-388-11	JACK BLOCK, PIN 9P			
		<CHIP CONDUCTOR>			
JR8206	1-216-295-91	SHORT	0		
JR8401	1-216-295-91	SHORT	0		
		<COIL>			
L8204	1-414-856-11	INDUCTOR	10UH		
L8301	1-414-189-31	INDUCTOR	100UH		
L8502	1-414-856-11	INDUCTOR	10UH		
L8570	1-410-470-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q8309	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q8310	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q8401	8-729-424-67	TRANSISTOR UN2216			
Q8402	8-729-424-67	TRANSISTOR UN2216			
Q8403	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q8404	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q8571	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q8572	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q8573	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q8574	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
Q8575	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q8576	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q8577	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
		<RESISTOR>			
R8215	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R8216	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R8217	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8218	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8219	1-216-025-91	RES-CHIP	100	5%	1/10W
R8220	1-216-025-91	RES-CHIP	100	5%	1/10W
R8221	1-216-689-11	RES-CHIP	39K	5%	1/10W
R8222	1-216-689-11	RES-CHIP	39K	5%	1/10W
R8223	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R8224	1-216-073-00	RES-CHIP	10K	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

B6 C6

REF. NO.	PART NO.	DESCRIPTION			REMARK
R8225	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R8226	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R8238	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8239	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8240	1-216-689-11	RES-CHIP	39K	5%	1/10W
R8241	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8242	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8243	1-216-689-11	RES-CHIP	39K	5%	1/10W
R8334	1-216-022-00	RES-CHIP	75	5%	1/10W
R8335	1-216-033-00	RES-CHIP	220	5%	1/10W
R8336	1-216-041-00	RES-CHIP	470	5%	1/10W
R8337	1-216-045-00	RES-CHIP	680	5%	1/10W
R8339	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8341	1-216-045-00	RES-CHIP	680	5%	1/10W
R8342	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8343	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R8344	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8401	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8402	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8403	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8404	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8405	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8406	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8407	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8408	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8409	1-216-041-00	RES-CHIP	470	5%	1/10W
R8410	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8411	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8412	1-216-041-00	RES-CHIP	470	5%	1/10W
R8413	1-216-021-00	RES-CHIP	68	5%	1/10W
R8414	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8415	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8416	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8417	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8418	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8419	1-216-022-00	RES-CHIP	75	5%	1/10W
R8420	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8421	1-216-077-91	RES-CHIP	15K	5%	1/10W
R8422	1-216-077-91	RES-CHIP	15K	5%	1/10W
R8423	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8424	1-216-022-00	RES-CHIP	75	5%	1/10W
R8425	1-216-033-00	RES-CHIP	220	5%	1/10W
R8426	1-216-033-00	RES-CHIP	220	5%	1/10W
R8427	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8428	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8429	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8430	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8570	1-216-021-00	RES-CHIP	68	5%	1/10W
R8571	1-216-645-11	METAL CHIP	560	0.5%	1/10W
R8572	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R8573	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8574	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R8575	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8577	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8578	1-216-033-00	RES-CHIP	220	5%	1/10W
R8579	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8580	1-216-049-91	RES-CHIP	1K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R8581	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R8582	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R8583	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R8584	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R8585	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R8586	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R8589	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8590	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8591	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8592	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8593	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8594	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8595	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8596	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8598	1-216-025-91	RES-CHIP	100	5%	1/10W
R8599	1-216-025-91	RES-CHIP	100	5%	1/10W
R8601 ⚠	1-202-719-00	SOLID	1M	10%	1/2W

<TRANSFORMER>

T8601 ⚠	1-431-536-11	TRANSFORMER, LINE FILTER	
T8602 ⚠	1-431-182-11	TRANSFORMER, LINE FILTER	

<VARISTOR>

VDR8461	1-803-830-31	VARISTOR (ERZV14D621)	

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*	A-1332-011-A	C6 BOARD MOUNTED			
		**********			
	7-682-948-01	SCREW +PSW 3X8			

<CAPACITOR>

C701	1-162-114-00	CERAMIC	0.0047UF		2KV
C702	1-102-074-00	CERAMIC	0.001UF	10.00%	50V
C708	1-102-114-00	CERAMIC	470PF	10.00%	50V
C709	1-102-114-00	CERAMIC	470PF	10.00%	50V
C710	1-102-114-00	CERAMIC	470PF	10.00%	50V
C712	1-102-115-00	CERAMIC	560PF	10.00%	50V
C713	1-102-112-00	CERAMIC	330PF	10.00%	50V
C714	1-102-113-00	CERAMIC	390PF	10.00%	50V
C716	1-126-933-11	ELECT	100UF	20.00%	16V
C717	1-107-651-11	ELECT	4.7UF	20.00%	250V
C726	1-104-664-11	ELECT	47UF	20.00%	25V
C1800	1-126-964-11	ELECT	10UF	20.00%	50V
C1803	1-126-964-11	ELECT	10UF	20.00%	50V
C1804	1-126-964-11	ELECT	10UF	20.00%	50V
C1809	1-126-942-61	ELECT	1000UF	20.00%	25V

<CONNECTOR>

CN700	1-695-915-11	TAB (CONTACT)
CN701	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CN702	1-695-915-11	TAB (CONTACT)

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.		PART NO.	DESCRIPTION	REMARK
CN703	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN704		1-695-915-11	TAB (CONTACT)	
CN1801	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN1802	*	1-564-506-11	PLUG, CONNECTOR 3P	
			<DIODE>	
D701		8-719-911-19	DIODE 1SS119-25TD	
D702		8-719-911-19	DIODE 1SS119-25TD	
D703		8-719-911-19	DIODE 1SS119-25TD	
D704		8-719-911-19	DIODE 1SS119-25TD	
D705		8-719-911-19	DIODE 1SS119-25TD	
D706		8-719-911-19	DIODE 1SS119-25TD	
D707		8-719-911-19	DIODE 1SS119-25TD	
D708		8-719-911-19	DIODE 1SS119-25TD	
D709		8-719-911-19	DIODE 1SS119-25TD	
D710		8-719-911-19	DIODE 1SS119-25TD	
D711		8-719-911-19	DIODE 1SS119-25TD	
D712		8-719-911-19	DIODE 1SS119-25TD	
D713		8-719-911-19	DIODE 1SS119-25TD	
D714		8-719-911-19	DIODE 1SS119-25TD	
D715		8-719-911-19	DIODE 1SS119-25TD	
D716		8-719-911-19	DIODE 1SS119-25TD	
D717		8-719-929-15	DIODE RD9.1ES-T1B	
D1803		8-719-911-19	DIODE 1SS119-25TD	
D1804		8-719-911-19	DIODE 1SS119-25TD	
D1808		8-719-908-03	DIODE GP08DPKG23	
			<IC>	
IC1800		8-759-822-38	IC LA6510	
			<JACK>	
J701	⚠	1-540-071-22	SOCKET, CRT	
			<COIL>	
L701		1-410-667-31	INDUCTOR 22UH	
L703		1-408-611-31	INDUCTOR 47UH	
L705		1-408-609-41	INDUCTOR 33UH	
L707		1-408-611-31	INDUCTOR 47UH	
			<TRANSISTOR>	
Q701		8-729-326-11	TRANSISTOR 2SC2611	
Q702		8-729-326-11	TRANSISTOR 2SC2611	
Q703		8-729-326-11	TRANSISTOR 2SC2611	
Q704		8-729-326-11	TRANSISTOR 2SC3271F-N	
Q705		8-729-326-11	TRANSISTOR 2SC3271F-N	
Q706		8-729-326-11	TRANSISTOR 2SC3271F-N	
Q707		8-729-200-17	TRANSISTOR 2SA1091O-TPE2	
Q708		8-729-200-17	TRANSISTOR 2SA1091O-TPE2	
Q709		8-729-200-17	TRANSISTOR 2SA1091O-TPE2	
Q710		8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q711		8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q712		8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q714		8-729-255-12	TRANSISTOR 2SC2551O-TPE2	
Q1800		8-729-119-76	TRANSISTOR 2SA1175TP-HFE	
Q1802		8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
			<RESISTOR>	
R701		1-249-496-11	CARBON 100K 5% 1/2W	
R705		1-216-392-11	METAL OXIDE 1.8 5% 3W	
R710		1-215-923-00	METAL OXIDE 10K 5% 3W	
R711		1-260-330-11	CARBON 1.5K 5% 1/2W	
R712		1-215-923-00	METAL OXIDE 10K 5% 3W	
R713		1-260-330-11	CARBON 1.5K 5% 1/2W	
R714		1-215-923-00	METAL OXIDE 10K 5% 3W	
R715		1-260-330-11	CARBON 1.5K 5% 1/2W	
R716		1-249-405-11	CARBON 100 5% 1/4W	
R717		1-249-405-11	CARBON 100 5% 1/4W	
R718		1-249-405-11	CARBON 100 5% 1/4W	
R719		1-215-469-00	METAL 100K 1% 1/4W	
R720		1-249-923-11	CARBON 1K 5% 1/4W	
R722		1-249-923-11	CARBON 1K 5% 1/4W	
R723		1-215-469-00	METAL 100K 1% 1/4W	
R724		1-249-923-11	CARBON 1K 5% 1/4W	
R725		1-249-424-11	CARBON 3.9K 5% 1/4W	
R726		1-249-424-11	CARBON 3.9K 5% 1/4W	
R727		1-249-424-11	CARBON 3.9K 5% 1/4W	
R728		1-249-408-11	CARBON 180 5% 1/4W	
R729		1-249-408-11	CARBON 180 5% 1/4W	
R730		1-249-408-11	CARBON 180 5% 1/4W	
R731		1-249-401-11	CARBON 47 5% 1/4W	
R732		1-249-401-11	CARBON 47 5% 1/4W	
R733		1-249-401-11	CARBON 47 5% 1/4W	
R734		1-247-739-11	CARBON 100 5% 1/2W	
R738		1-247-807-31	CARBON 100 5% 1/4W	
R739		1-247-807-31	CARBON 100 5% 1/4W	
R740		1-247-807-31	CARBON 100 5% 1/4W	
R744		1-215-415-00	METAL 560 1% 1/4W	
R745		1-215-410-00	METAL 360 1% 1/4W	
R747		1-215-926-00	METAL OXIDE 33K 5% 3W	
R749		1-215-927-00	METAL OXIDE 47K 5% 3W	
R751		1-216-490-11	METAL OXIDE 39K 5% 3W	
R753		1-249-429-11	CARBON 10K 5% 1/4W	
R755		1-249-427-11	CARBON 6.8K 5% 1/4W	
R756		1-249-427-11	CARBON 6.8K 5% 1/4W	
R757		1-249-427-11	CARBON 6.8K 5% 1/4W	
R758		1-249-419-11	CARBON 1.5K 5% 1/4W	
R759		1-249-419-11	CARBON 1.5K 5% 1/4W	
R760		1-249-419-11	CARBON 1.5K 5% 1/4W	
R1800		1-249-417-11	CARBON 1K 5% 1/4W	
R1801		1-249-426-11	CARBON 5.6K 5% 1/4W	
R1802		1-249-387-11	CARBON 3.3 5% 1/4W	
R1803		1-249-387-11	CARBON 3.3 5% 1/4W	
R1805		1-249-429-11	CARBON 10K 5% 1/4W	
R1806		1-249-425-11	CARBON 4.7K 5% 1/4W	
R1808		1-249-425-11	CARBON 4.7K 5% 1/4W	
R1809		1-249-435-11	CARBON 33K 5% 1/4W	
R1810		1-249-435-11	CARBON 33K 5% 1/4W	
R1811		1-249-435-11	CARBON 33K 5% 1/4W	
R1812		1-249-435-11	CARBON 33K 5% 1/4W	
R1821		1-249-435-11	CARBON 33K 5% 1/4W	

C6 D3 H2

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1822	1-249-435-11	CARBON	33K	5%	1/4W
R1823	1-249-426-11	CARBON	5.6K	5%	1/4W
R1824	1-249-435-11	CARBON	33K	5%	1/4W
R1825	1-247-843-11	CARBON	3.3K	5%	1/4W
		<VARIABLE RESISTOR>			
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M			
RV1801	1-223-241-11	RES, ADJ, CARBON 47K			

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* A-1343-763-A D3 BOARD MOUNTED
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		<CAPACITOR>			
C2800	1-104-664-11	ELECT	47UF	20.00%	25V
C2801	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C2802	1-136-155-00	MYLAR	0.015UF	5.00%	50V
C2803	1-129-723-00	FILM	0.056UF	5.00%	630V
C2805	1-104-664-11	ELECT	47UF	20.00%	25V
C2806	1-106-383-00	MYLAR	0.047UF	5.00%	100V
C2807	1-137-194-81	MYLAR	0.47UF	5.00%	50V
C2808	1-126-964-11	ELECT	10UF	20.00%	50V
C2809	1-137-194-81	MYLAR	0.47UF	5.00%	50V
C2810	1-106-375-12	MYLAR	0.022UF	10.00%	250V
C2811	1-126-964-11	ELECT	10UF	20.00%	50V
C2812	1-126-964-11	ELECT	10UF	20.00%	50V
C2813	1-129-708-61	FILM	0.0033UF	5.00%	630V
		<CONNECTOR>			
CN2800 *	1-564-510-11	PLUG, CONNECTOR 7P			
CN2802 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN2803	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D2800	8-719-302-43	DIODE RGP10GPKG23			
D2801	8-719-911-19	DIODE 1SS119-25TD			
D2802	8-719-911-19	DIODE 1SS119-25TD			
D2803	8-719-911-19	DIODE 1SS119-25TD			
		<IC>			
IC2800	8-759-701-59	IC NJM78M09FA			
IC2801	8-759-998-98	IC LM358DR			
		<COIL>			
L2800	1-406-989-71	INDUCTOR	0UH		
L2802	1-406-987-21	INDUCTOR	4.7MH		
L2803	1-406-986-21	INDUCTOR	3.3UH		
L2804	1-406-678-11	INDUCTOR	15MH		
		<TRANSISTOR>			
Q2800	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
Q2801	8-729-195-82	TRANSISTOR 2SC2958-L			
Q2802	8-729-017-06	TRANSISTOR 2SC4793			
Q2803	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L			
Q2804	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L			
		<RESISTOR>			
R2800	1-249-405-11	CARBON	100	5%	1/4W
R2802	1-260-111-11	CARBON	10K	5%	1/2W
R2803	1-260-111-11	CARBON	10K	5%	1/2W
R2804	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R2805	1-216-097-91	RES-CHIP	100K	5%	1/10W
R2806	1-249-421-11	CARBON	2.2K	5%	1/4W
R2807	1-249-420-11	CARBON	1.8K	5%	1/4W
R2808	1-215-857-11	METAL OXIDE	10	5%	1W
R2809	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2810	1-216-049-91	RES-CHIP	1K	5%	1/10W
R2811	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R2812	1-216-081-00	RES-CHIP	22K	5%	1/10W
R2813	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2814	1-216-121-91	RES-CHIP	1M	5%	1/10W
R2815	1-216-085-00	RES-CHIP	33K	5%	1/10W
R2816	1-216-107-00	RES-CHIP	270K	5%	1/10W
R2817	1-216-107-00	RES-CHIP	270K	5%	1/10W
		<TRANSFORMER>			
T2800	1-413-059-00	TRANSFORMER, FERRITE (DFT)			

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* A-1372-742-A H2 BOARD MOUNTED
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*	4-055-304-01	HOLDER, LED			
		<CAPACITOR>			
C2910	1-104-664-11	ELECT	47UF	20.00%	16V
C2911	1-104-664-11	ELECT	47UF	20.00%	16V
C2912	1-102-114-00	CERAMIC	470PF	10.00%	50V
		<CONNECTOR>			
CN2601 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN2602 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN2901 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN2902 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN2904 *	1-564-508-11	PLUG, CONNECTOR 5P			
CN2905 *	1-564-512-11	PLUG, CONNECTOR 9P			

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

H2 **V1**

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D2905	8-719-070-16	DIODE NNCD9.1A-T1			
D2906	8-719-045-19	DIODE SPB-26MVWF			
D2908	8-719-070-16	DIODE NNCD9.1A-T1			
		<IC>			
IC2901	8-759-180-30	HYB IC SBX3081-51(30)			
		<JACK>			
J2901	1-770-786-11	JACK			
J2903	1-770-329-11	JACK, PIN 3P			
		<TRANSISTOR>			
Q2901	8-729-030-02	TRANSISTOR DTC144ESA-TP			
Q2902	8-729-030-02	TRANSISTOR DTC144ESA-TP			
		<RESISTOR>			
R2907	1-249-426-11	CARBON	5.6K	5%	1/4W
R2908	1-249-413-11	CARBON	470	5%	1/4W
R2909	1-249-417-11	CARBON	1K	5%	1/4W
R2910	1-249-420-11	CARBON	1.8K	5%	1/4W
R2911	1-249-411-11	CARBON	330	5%	1/4W
R2912	1-247-843-11	CARBON	3.3K	5%	1/4W
R2913	1-249-429-11	CARBON	10K	5%	1/4W
R2914	1-249-411-11	CARBON	330	5%	1/4W
R2915	1-249-429-11	CARBON	10K	5%	1/4W
R2916	1-249-401-11	CARBON	47	5%	1/4W
R2920	1-247-807-31	CARBON	100	5%	1/4W
R2921	1-247-807-31	CARBON	100	5%	1/4W
		<SWITCH>			
S2601 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)			
S2902	1-692-431-21	SWITCH, TACTILE			
S2903	1-692-431-21	SWITCH, TACTILE			
S2904	1-692-431-21	SWITCH, TACTILE			
S2905	1-692-431-21	SWITCH, TACTILE			
S2906	1-692-431-21	SWITCH, TACTILE			
S2907	1-692-431-21	SWITCH, TACTILE			
S2908	1-692-431-21	SWITCH, TACTILE			
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*	A-1347-155-A	V1 BOARD COMPLETE			
		**********			
		<CAPACITOR>			
C801	1-104-664-11	ELECT	47UF	20.00%	16V
C805	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C806	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C814	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C815	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C816	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C817	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C818	1-163-239-11	CERAMIC CHIP	33PF	5.00%	50V
C820	1-163-239-11	CERAMIC CHIP	33PF	5.00%	50V
C821	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C822	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C823	1-126-933-11	ELECT	100UF	20.00%	16V
C826	1-126-963-11	ELECT	4.7UF	20.00%	50V
C829	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C830	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C831	1-126-933-11	ELECT	100UF	20.00%	16V
C832	1-126-964-11	ELECT	10UF	20.00%	50V
C835	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C837	1-126-933-11	ELECT	100UF	20.00%	16V
		<CONNECTOR>			
CN801 *	1-774-812-11	CONNECTOR, BOARD TO BOARD 7P			
CN803 *	1-774-812-11	CONNECTOR, BOARD TO BOARD 7P			
		<DIODE>			
D802	8-719-914-44	DIODE DAP202K-T-146			
D803	8-719-105-46	DIODE RD3.3M-T1B2			
D804	8-719-105-91	DIODE RD5.6M-T1B2			
D806	8-719-988-61	DIODE 1SS355TE-17			
D807	8-719-988-61	DIODE 1SS355TE-17			
		<FERRITE BEAD>			
FB801	1-410-397-21	FERRITE	1.1UH		
FB802	1-410-397-21	FERRITE	1.1UH		
FB803	1-410-397-21	FERRITE	1.1UH		
FB804	1-410-682-31	INDUCTOR	470UH		
FB805	1-410-397-21	FERRITE	1.1UH		
		<IC>			
IC801	8-759-476-87	IC SAA5261			
		<CHIP CONDUCTOR>			
JR801	1-216-295-91	SHORT	0		
JR802	1-216-295-91	SHORT	0		
JR804	1-216-295-91	SHORT	0		
JR805	1-216-295-91	SHORT	0		
JR806	1-216-295-91	SHORT	0		
JR807	1-216-295-91	SHORT	0		
JR808	1-216-295-91	SHORT	0		
		<TRANSISTOR>			
Q801	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q803	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q805	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			

V1 VM1

REF. NO.	PART NO.	DESCRIPTION			REMARK
Q806	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q807	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q808	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q810	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q811	8-729-019-01	TRANSISTOR 2SD2394-EF			
Q812	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q813	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q814	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q817	8-729-900-53	TRANSISTOR DTC114EKA-T146			
Q818	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
		<RESISTOR>			
R800	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R801	1-216-295-91	SHORT	0		
R802	1-216-025-91	RES-CHIP	100	5%	1/10W
R803	1-216-295-91	SHORT	0		
R804	1-216-295-91	SHORT	0		
R805	1-216-295-91	SHORT	0		
R807	1-216-295-91	SHORT	0		
R813	1-216-295-91	SHORT	0		
R820	1-216-073-00	RES-CHIP	10K	5%	1/10W
R821	1-216-083-00	RES-CHIP	27K	5%	1/10W
R822	1-216-025-91	RES-CHIP	100	5%	1/10W
R824	1-216-295-91	SHORT	0		
R825	1-216-295-91	SHORT	0		
R827	1-216-295-91	SHORT	0		
R828	1-216-025-91	RES-CHIP	100	5%	1/10W
R829	1-216-025-91	RES-CHIP	100	5%	1/10W
R830	1-216-295-91	SHORT	0		
R831	1-216-295-91	SHORT	0		
R832	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R835	1-216-295-91	SHORT	0		
R839	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R841	1-216-025-91	RES-CHIP	100	5%	1/10W
R842	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R843	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R844	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R845	1-216-049-91	RES-CHIP	1K	5%	1/10W
R846	1-216-049-91	RES-CHIP	1K	5%	1/10W
R847	1-216-049-91	RES-CHIP	1K	5%	1/10W
R848	1-216-049-91	RES-CHIP	1K	5%	1/10W
R849	1-216-049-91	RES-CHIP	1K	5%	1/10W
R850	1-216-105-91	RES-CHIP	220K	5%	1/10W
R851	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R853	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R857	1-216-081-00	RES-CHIP	22K	5%	1/10W
R858	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R861	1-216-049-91	RES-CHIP	1K	5%	1/10W
R862	1-260-095-11	CARBON	470	5%	1/2W
R863	1-216-049-91	RES-CHIP	1K	5%	1/10W
R864	1-216-041-00	RES-CHIP	470	5%	1/10W
R866	1-215-880-00	METAL OXIDE	10	5%	2W
R871	1-216-037-00	RES-CHIP	330	5%	1/10W
R879	1-216-073-00	RES-CHIP	10K	5%	1/10W
R880	1-216-041-00	RES-CHIP	470	5%	1/10W
R882	1-216-049-91	RES-CHIP	1K	5%	1/10W
R884	1-216-025-91	RES-CHIP	100	5%	1/10W
R888	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R889	1-216-073-00	RES-CHIP	10K	5%	1/10W
R890	1-216-081-00	RES-CHIP	22K	5%	1/10W
R894	1-216-073-00	RES-CHIP	10K	5%	1/10W
R895	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R896	1-216-073-00	RES-CHIP	10K	5%	1/10W
R897	1-216-073-00	RES-CHIP	10K	5%	1/10W
R898	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
		<CRYSTAL>			
X801	1-578-774-11	VIBRATOR, CRYSTAL			
**********					
*	A-1342-519-A	VM1 BOARD MOUNTED			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C5902	1-104-661-91	ELECT	330UF	20.00%	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-925-11	ELECT	470UF	20.00%	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00%	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C5909	1-126-933-11	ELECT	100UF	20.00%	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00%	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00%	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-925-11	ELECT	470UF	20.00%	10V
C5918	1-115-341-51	CERAMIC	120PF	10.00%	500V
C5920	1-126-964-11	ELECT	10UF	20.00%	50V
C5921	1-102-852-91	CERAMIC	47PF	5.00%	50V
		<CONNECTOR>			
CN2801*	1-564-506-11	PLUG, CONNECTOR 3P			
CN5901*	1-564-510-11	PLUG, CONNECTOR 7P			
CN5904*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
		<DIODE>			
D5901	8-719-911-19	DIODE 1SS119-25TD			
D5902	8-719-110-88	DIODE MTZJ-T-77-39			
D5903	8-719-911-19	DIODE 1SS119-25TD			
D5904	8-719-110-88	DIODE MTZJ-T-77-39			
D5905	8-719-911-19	DIODE 1SS119-25TD			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

VM1

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<COIL>			
L5901	1-414-187-11	INDUCTOR	47UH		
L5902	1-414-856-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q5901	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5902	8-729-809-26	TRANSISTOR 2SA1606-E			
Q5903	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5904	8-729-119-76	TRANSISTOR 2SA1175TP-HFE			
Q5905	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5906	8-729-809-29	TRANSISTOR 2SC4159-E			
Q5908	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
Q5909	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
		<RESISTOR>			
R5901	1-247-815-91	CARBON	220	5%	1/4W
R5902	1-249-414-11	CARBON	560	5%	1/4W
R5903	1-247-734-11	CARBON	39	5%	1/2W
R5904	1-249-411-11	CARBON	330	5%	1/4W
R5905	1-249-417-11	CARBON	1K	5%	1/4W
R5906	1-249-417-11	CARBON	1K	5%	1/4W
R5907	1-249-417-11	CARBON	1K	5%	1/4W
R5908	1-249-383-11	CARBON	1.5	5%	1/4W
R5909	1-247-815-91	CARBON	220	5%	1/4W
R5910	1-249-403-11	CARBON	68	5%	1/4W
R5911	1-249-439-11	CARBON	68K	5%	1/4W
R5912	1-249-437-11	CARBON	47K	5%	1/4W
R5914	1-249-403-11	CARBON	68	5%	1/4W
R5915	1-249-429-11	CARBON	10K	5%	1/4W
R5916	1-249-419-11	CARBON	1.5K	5%	1/4W
R5917	1-249-416-11	CARBON	820	5%	1/4W
R5918	1-249-429-11	CARBON	10K	5%	1/4W
R5919	1-249-417-11	CARBON	1K	5%	1/4W
R5920	1-249-439-11	CARBON	68K	5%	1/4W
R5921	1-216-476-11	METAL OXIDE	180	5%	3W
R5922	1-249-414-11	CARBON	560	5%	1/4W
R5923	1-249-383-11	CARBON	1.5	5%	1/4W
R5925	1-249-400-11	CARBON	39	5%	1/4W
R5929	1-215-880-00	METAL OXIDE	10	5%	2W
R5930	1-249-413-11	CARBON	470	5%	1/4W
R5931	1-249-413-11	CARBON	470	5%	1/4W
R5932	1-249-413-11	CARBON	470	5%	1/4W
R5933	1-249-413-11	CARBON	470	5%	1/4W
R5934	1-249-430-11	CARBON	12K	5%	1/4W
R5935	1-249-429-11	CARBON	10K	5%	1/4W

****

REF. NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
⚠	1-419-323-11	COIL, DEGAUSSING	
	1-452-094-00	CIRCULAR DISC MAGNET B	
	1-452-032-00	MAGNET,DISC	
	1-452-896-11	COIL, NA ROTATION (RT200)	
⚠	1-574-358-11	CORD, POWER (WITH CONNECTOR) 7.5A/250V	
	1-529-563-11	SPEAKER (15X6.5CM)	
⚠	8-735-057-05	PICTURE TUBE (M68LNH070X)	
⚠	8-451-494-31	DEFELCETION YOKE (Y29RSA-S)	
	8-453-011-11	NA299-M	

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ACCESSORIES AND PACKING MATERIALS
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	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
	3-868-153-22	MANUAL, INSTRUCTION
*	4-029-168-01	BAG, PROTECTION
*	4-054-319-01	TRAY
	4-065-210-01	JOINT
*	4-066-926-03	CUSHION (UPPER) (ASSY)
*	4-066-927-02	CUSHION (LOWER) (ASSY)
*	4-072-935-01	INDIVIDUAL CARTON
	4-392-003-11	BAND, HOLD
	4-392-004-11	CLIP

****

REMOTE COMMANDER
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1-418-163-11	REMOTE COMMANDER (RM-952)
9-939-679-01	BATTERY COVER, REMOTE COMMANDER

Sony Corporation
Sony Technology Malaysia Sdn. Bhd.
TV Business of General Area

9-872-208-01

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